1850

# REPORT

ON

# THE CONDITION AND PROGRESS

OF THE

# QUEEN'S UNIVERSITY IN IRELAND,

FROM

SEPTEMBER 1, 1853, TO AUGUST 31, 1854.

BY

THE RIGHT HON. MAZIERE BRADY,

VICE-CHANCELLOR OF THE UNIVERSITY, AND LORD HIGH CHANCELLOR OF IRELAND.

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Presented to both Houses of Parliament by Command of Her Majesty.

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1854.

# REPORT.

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TO HIS EXCELLENCY THE EARL OF ST. GERMANS, LORD LIEUTENANT GENERAL, AND GENERAL GOVERNOR OF IRELAND.

*Dublin*, 1*st September*, 1854.

MAY IT PLEASE YOUR EXCELLENCY,

In the absence of the Earl of Clarendon, K.G., G.C.B., Chancellor of the Queen's University in Ireland, it becomes my duty, as Vice-Chancellor, to submit to your Excellency the report of its condition and progress since 1st September, 1853.

In accordance with the Ordinance, approved by your Excellency on the 15th March, 1853, the Examinations for that year were commenced on the 20th September, and terminated on the 1st October; they were carried on in the order stated in the annexed table. Appendix I.

They were mainly conducted by printed papers, copies of which I have hereunto attached. Appendix II.

The several Candidates named in the accompanying lists were duly passed by the Examiners for Degrees, Diplomas, and Honors; eight of those who presented themselves for Examination having been rejected. Appendix III.

The results of the Examinations having been approved by the Senate, a public meeting was held on the 10th of October, in St. Patrick's Hall, when, in your Excellency's presence, the various Degrees, Diplomas, and Honors, just referred to, were duly conferred. I annex an account of the proceedings on that occasion. Appendix IV.

It having appeared to the Senate that several of the Examiners considered that they, as a body, had the power to pass Candidates for Degrees by a vote of the majority, the Senate directed it to be intimated to them that the rejection of a Candidate by any one Examiner could not be overruled by the vote of the others; the Ordinances requiring each Candidate to pass in all the essential subjects of education prescribed in his course.

Memorials having been received by the Senate from a Committee of Non-subscribing Presbyterians, and from the Professors of the Queen's College, Belfast, requesting modifications in the courses of education now prescribed, the Senate has devoted much anxious attention to the subject, but has not yet been able to arrive at a conclusion, as to the expediency or propriety of adopting any of the suggestions referred to.

The Right Hon. Henry Monahan, Chief Justice of the Court of Common Pleas, has been appointed, by Her Majesty's Warrant, a member of the Senate, *vice* the Right Hon. T. B. C. Smith, resigned.

Applications having been made by several individuals, relative to the granting of *ad eundem* Degrees, the Senate consider that it would be proper to exercise the power they possess in that respect under the Charter, by conferring on persons holding Degrees in other Universities similar Degrees in this; but that it should be done with great care, and on the special application of each individual desirous of that distinction, to be submitted to the Senate for separate consideration.

I have to express the gratification of the Senate, that Her Majesty's Government have favourably entertained the claims of the Queen's Colleges to increased grants, for the maintenance of Museums, Libraries, &c., as strongly recommended by the report of the Senate of the 17th day of December, 1853.

In addition to the several papers referred to in the foregoing, I append the following for your Excellency's information, viz.:—

Appendix V. A list of the Medical Schools and Hospitals which have, in compliance with the regulations, made returns of the Students attending their respective establishments.

Appendix VI. A copy of the Estimate submitted to Parliament of expenses for the current year.

Appendix VII. The Cash Account for the year ended 20th June last.

Appendix VIII. The Ordinance for the Examination appointed to commence on 19th September, 1854.

Appendix IX. A list of the twenty Examiners elected on 17th July last, to conduct the Examination. Of these eleven were re-elected, nine are new appointments.

Appendix X. A statement of the several meetings of the Senate.

I have the honour to be
Your Excellency's
Obedient and faithful Servant,

MAZIERE BRADY,
*Vice-Chancellor.*

# APPENDIX.

I.—ORDER of the EXAMINATION in the QUEEN'S UNIVERSITY in IRELAND, 1853.

| | | ARTS, A.B. DEGREE. | AGRICULTURE. | MEDICINE. |
|---|---|---|---|---|
| TUESDAY, 20TH SEPTEMBER, | 9 o'clock, | Latin, | Theory of Agriculture, Farm Finance and Accounts, | Medicine. |
| | 2 o'clock, | Greek, | Practice of Agriculture, Farm Improvements, | Surgery |
| WEDNESDAY, 21ST SEPTEMBER, | 9 o'clock, | Modern Languages, | History and Diseases of Farm Animals, | Modern Languages. |
| | 2 o'clock, | English Literature, | Surveying and Mapping, | Materia Medica, Pharmacy, and Medical Jurisprudence. |
| THURSDAY, 22ND SEPTEMBER, | 9 o'clock, | Mathematics, | Arithmetic, | Anatomy. |
| | 9 o'clock, | Logic, Metaphysics, | — — | Physiology and Comparative Anatomy. |
| FRIDAY, 23RD SEPTEMBER, | 9 o'clock, | Chemistry, | Chemistry, | Chemistry. |
| | 2 o'clock, | Natural Philosophy, | Elements of Physics, | Natural Philosophy. |
| SATURDAY, 24TH SEPTEMBER, | 9 o'clock, | Zoology and Botany, | Principles of Zoology and Botany, | Botany (Zoology, Junior Class) |
| | 9 o'clock, | Physical Geography, | Mineralogy and Geology, Physical Geography | Midwifery and Diseases of Women and Children. |
| MONDAY, 26TH SEPTEMBER, | 9 o'clock, | Jurisprudence & Political Economy | | |

ORDER of the EXAMINATION in the QUEEN'S UNIVERSITY in IRELAND, 1853—*continued.*

| | | A.B. HONORS. | | | | A.M. DEGREE AND HONORS. | | | | | | AGRICULTURE | MEDICINE. | FACULTY OF LAW | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | DIPLOMA OF ELEMENTARY LAW | THE DEGREE OF LL.B. |
| TUESDAY, 27TH SEPTEMBER, | 9 o'clock. | I. CLASSICAL LANGUAGES. | Greek. | V. | Natural Philosophy | I. | Greek. | III. | Natural Philosophy | | | Elements of Physics. | Natural Philosophy. | Law of Property, and Principles of Conveyancing. Jurisprudence. | Law of Property, and Principles of Conveyancing Jurisprudence. |
| | 2 o'clock | | Greek. | | Natural Philosophy | | Greek. | | Natural Philosophy. | IV. | Natural Philosophy. | Theory of Agricultural Finance and Farm Accounts. | Medicine. | Equity, Common and Criminal Law. Civil Law. | Equity, Common and Criminal Law Civil Law |
| WEDNESDAY, 28TH SEPTEMBER, | 9 o'clock. | | Latin. | VI. | Chemistry | | Latin. | | | | | Chemistry | Chemistry. | HONOR EXAMINATION Law of Property, and Principles of Conveyancing. Jurisprudence. | Pleading, Practice, and Evidence. Constitutional and Colonial and International Law |
| | 2 o'clock. | | Latin. | | Chemistry<br>* Thursday,<br>* Friday, | | Latin, English Composition, Modern Languages. | | | | Chemistry | Surveying & Mapping | Surgery | Equity, Common and Criminal Law Civil Law | |
| * THURSDAY, 29TH SEPTEMBER, | 9 o'clock. | II. | English Literature. | VII. | Natural Sciences, Zoology, Botany, &c. | II. | English, &c. | | | | Natural Sciences, Zoology, Botany, &c. | Zoology and Botany | Botany | | HONOR EXAMINATION Law of Property and Principles of Conveyancing Equity & Bankruptcy. |
| | 2 o'clock. | | English Literature. | | Mineralogy, Geology and Physical Geography | | English, &c | | | | Natural Sciences, Mineralogy, Geology and Physical Geography | Mineralogy, Geology, and Physical Geography. | Midwifery and Diseases of Women and Children. | | Common and Criminal Law Pleading, Practice, and Evidence. |
| * FRIDAY, 30TH SEPTEMBER, | 9 o'clock | III | Modern Languages | VIII. | Logic. | | Logic. | | | | | Practice of Agriculture, Farm Improvements. | Modern Languages. | | Jurisprudence. Civil Law |
| | 2 o'clock | X. | Celtic Languages. | | Metaphysics. | | Metaphysics. | | | | | History and Diseases of Farm Animals. | Materia Medica, Pharmacy and Medical Jurisprudence. | | Constitutional Law Colonial Law International Law |
| SATURDAY, 1ST OCTOBER, | 9 o'clock. | IV. | Mathematics. | IX. | Jurisprudence. | | Jurisprudence. | | Mathematics. | | | Arithmetic. | Anatomy and Physiology | | |
| | 2 o'clock. | | Mathematics. | | Political Economy | | Political Economy | | Mathematics. | | | | Anatomy human and comparative. | | |

## II.—EXAMINATION FOR THE DEGREE OF M.D.

*20th September*, 1853, 9 *o'clock, a.m.*

### THEORY AND PRACTICE OF MEDICINE—*Examiner, Professor Banks.*

1. Enumerate the physical signs of pleuritic effusion, and state with what diseases it may be confounded, and the differential diagnosis.
2. Give Dr. Stokes' views with reference to the mechanism of the displacement of the intercostals in pleuritic effusion.
3. Does the altered position of the heart in pleuritic effusion influence its sounds?
4. Is Ectopia Cordis, taken alone, of value as a sign of pleuritic effusion? May it occur in other diseases? and if so, under what circumstances?
5. In what cases is the operation of paracentesis thoracis indicated?
6. What pathological conditions may be expected if with signs of thoracic aneurism there exist extreme difficulty of raising the voice, and laryngeal blowing or "roaring?"
7. What is the respective influence of Pneumonia and Pleuritis on the progress of Phthisis?
8. State the law as to the order of frequency of rupture of the different parts of the heart.
9. Give Lænnec's explanation of the causes of bronchial dilatations, and Dr. Corrigan's theory of his "Cirrhosis of the lung."
10. To what disease of the lungs are the insane peculiarly liable, and in what respect does its progress differ from that of ordinary cases?
11. What treatment has Sir Henry Marsh recommended in Diabetes Melitus?
12. How would you treat a case of Peritonitis from perforation of the intestine?

*20th September*, 1853, 2 *o'clock, p.m.*

### SURGERY—*Examiner, James S. Hughes, M.D., F.R.C.S.I.*

1. Describe the ordinary symptoms of an intra-capsular fracture of the neck of the femur.
2. Point out the circumstances on which the degree of immediate shortening in fractures of the neck of the femur, within the capsular ligament, will depend.
3. Name the injury most likely to be confounded with an impacted fracture of the neck of the femur.
4. What are the principal points to which the Surgeon must direct his attention in the treatment of fractures of the neck of the femur within the capsular ligament?
5. Enumerate, in the order of their frequency, the luxations to which the elbow joint is liable; point out their distinguishing characters, and describe the best modes of reducing each luxation.
6. Give the symptoms of Hydrocele of the Tunica Vaginalis Testis.
7. Mention the affections which, possibly, might be mistaken for Hydrocele of the Tunica Vaginalis Testis.
8. Describe the different methods of treating Hydrocele.
9. What circumstances in conjunction with a compound fracture of an extremity would compel you to recommend immediate amputation of the limb?

*21st September*, 1853, 9 *o'clock, a.m.*

### ITALIAN—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

#### I.

Translate into Italian:

To desire or even to accept of praise, where no praise is due, can be the effect only of the most contemptible vanity. To desire it where it is really due, is to desire no more than that a most essential act of justice should be done to us. The love of just fame, of true glory, even for its own sake, and independent of any advantage which he can derive from it, is not unworthy even of a wise man.

A. SMITH—*Moral Sentiments.*

#### II.

Translate into English:

I Corsi, dati piuttosto alla vita selvaggia che alla civile, furono primieramente, per quanto si estendono le storie, signoreggiati dai Romani. I vincitori del mondo videro della Corsica poco più che i lidi: della parte aspra, selvaggia e montagnosa dell' interno, poco si curarono. Era per essi l' isola piuttosto posto militare per frenare corsari e Cartaginesi che parte dello stato, cui avanzare in civiltà volessero. Tributi, e questi ancora conformi alla natura delle terre e degli abitatori, ne cavavano.

CARLO BOTTA—*Storia d'Italia.*

#### III.

*Fabioni.*—Tribonio, signora, è in arresto. Egli ha confessato al presidente che a lui erano state mandate da Vienna la carte e i denari, onde far riconoscere la Contessa Amalia Alvisi come padrona di questa casa; ma che accecato dall' avidità d' un doppio lucro ritenne ogni cosa, e lasciò progredir la causa sin qui tra il mio cliente e la signora Contessa Gertrude.

NOTA—*I litiganti.*

21*st September*, 1853, 9 *o'clock, a.m.*

## FRENCH—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

### I.

Traduisez en Français:

The rude American tribes were divided into small independent communities. While hunting is the chief source of subsistence, a vast extent of territory is requisite for supporting a small number of people. In proportion as men multiply and unite, the wild animals on which they depend for food, diminish or fly at a greater distance from the haunts of their enemy. The increase of a society in this state is limited by its own nature, and the members of it must either disperse, like the game which they pursue, or fall upon some better method of procuring food than by hunting.

ROBERTSON—*History of America.*

### II.

Traduisez en Anglais:

Les habitants du Caucase, quoique individuellement très-courageux, sont incapables d'attaquer en masse, et sont par conséquent peu dangereux pour une troupe qui fait bonne contenance; mais ils ont de bonnes armes, et tirent fort juste. Leur grand nombre dans cette occasion, rendait le combat trop inégal. Après une assez longue fusillade, plus de la moitié des Cosaques furent tués ou mis hors de combat; le reste s'tait fait avec les chevaux morts un rempart circulaire derrière lequel ils tirèrent leurs dernières cartouches.

X. DE MAISTRE—*les Prisonniers du Caucase.*

### III.

L'idée du juste est une des gloires de la nature humaine. L'homme l'aperçoit d'abord, mais il ne l'aperçoit que comme un éclair dans la nuit profonde des passions primitives; il la voit sans cesse violée, et à tout moment effacée par le désordre nécessaire des passions et des intérêts contraires. Ce qu'il a plu d'appeler la société naturelle, n'est qu'un état de guerre, où règne le droit du plus fort, et où l'idée de la justice n'intervient guère que pour être foulée aux pieds par la passion. Mais enfin cette idée frappe aussi l'esprit de l'homme.

V. COUSIN—*Cours de Philosophie.*

21*st September*, 1853, 9 *o'clock, a.m.*

## GERMAN—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

### I.

Translate into German:

Lorenzo dei Medici was about sixteen years of age when Cosmo died, and had at that time given striking indications of extraordinary talents. From his earliest years he had exhibited proofs of a retentive and vigorous mind, which was cultivated, not only by all the attention which his father's infirmities would permit him to bestow, but by a frequent intercourse with his venerable grandfather.

WM. ROSCOE—*Life of Lorenzo dei Medici.*

### II.

Translate into English;

Der Pariſer Friede, wodurch Canada an England kam, befreite die alt engliſchen Colonien von der gefährlichen Nachbarſchaft der franzöſiſchen Pflanzer. Von nun an bedurften ſie des brittiſchen Schutzes minder. Ihr Selbſtgefühl, ſo wie ihre Kraft, ſtieg ſeitdem zuſehends; und ſie trugen jetzt minder geduldig als zuvor die Handelsbeſchränkungen, welche das Mutterland ihnen auflegte. Der Schleichhandel ward daher mit ſteigender Kühnheit getrieben, welches die Engländer zu harten Zwangsmaßregeln bewog.

ROTTECK—*Weltgeschichte.*

### III.

Wenn ihr in der Menſchheit traur'ger Blöße
Steht vor des Geſetzes Größe,
Wenn dem Heiligen die Schuld ſich naht,
Da erblaße vor der Wahrheit Strahle
Eure Tugend, vor dem Ideale,
Fliehe muthlos die beſchämte That.
Kein Erſchaffner hat dieß Ziel erflogen;
Ueber dieſen grauenvollen Schlund
Trägt kein nachen, keiner Brücke Bogen,
Und kein Anker findet Grund.

SCHILLER—*Das Ideal und das Leben.*

21*st September*, 1853, 2 *o'clock, p.m.*

## MATERIA MEDICA AND PHARMACY—*Examiner, Dr. Aquilla Smith.*

1. Describe the pharmaceutical processes of elutriation and percolation, and give examples of their application from the Dublin Pharmacopœia.
2. What is the weight of 10·73 fluid ounces of alcohol, of which the specific gravity is 0·795?
3. State the method by which you would determine the specific gravity of calomel.
4. Why is infusion of calumba ordered to be made with cold water?
5. Describe the process for preparing the syrup of iodide of iron, and state the quantity of the iodide which is contained in one fluid ounce of the syrup.
6. How much muriate of morphia is in one fluid ounce of the syrup of muriate of morphia?

7. Enumerate the plants in the Materia Medica of the Dublin Pharmacopœia, which belong to the natural family Solaneæ, and specify those which are indigenous.

8. What distinction do you draw between a narcotic and a sedative, and give examples of each class?

9. Describe the process for preparing antimonial powder; state its composition, dose, and use.

10. What are the officinal names of the drugs which are placed before you, and respectively numbered 1, 2, 3, 4, 5, 6?

### PRESCRIPTIONS:

(*The names of the drugs and quantities are to be written in Latin, without abbreviation.*)

11. Prescribe an eight ounce mixture, containing balsam of copaiba, in the form of a permanent emulsion.

12. Prescribe twelve pills, composed of gallic acid and confection of roses, and state the objection to dispensing the pills in magnesia.

*21st September*, 1853, 2 *o'clock, p.m.*

### MEDICAL JURISPRUDENCE—*Examiner, Dr. Aquilla Smith.*

1. Enumerate the signs of pregnancy, and specify those signs on which you would place most reliance, if you were required to swear in a court of justice as to the existence of pregnancy.

2. What is *kiestein*; and what inference would you draw from its presence in the urine of a female?

3. Explain the term *atelectasis*, and show the importance of the knowledge of such a condition, in reference to Medical Jurisprudence.

4. What are the signs from which you would conclude that a child had arrived at maturity at the time of its birth?

5. Describe the symptoms and treatment of poisoning by Sir W. Burnet's disinfecting fluid.

6. What are the evidences of recent delivery in a living woman?

7. Describe the symptoms and treatment of poisoning by oxalic acid.

8. Enumerate the diseases the symptoms of which resemble those caused by irritant poisons.

9. Describe *vaginitis* as it occurs in young females, and illustrate the importance of a knowledge of this disease in reference to Medical Jurisprudence.

*22nd September*, 1853, 9 *o'clock, a.m.*

### ANATOMY.—*Examiner, Croker King, M.D.*

1. Contrast the upper or false with the lower or true vocal cords, as to direction, position and structure.

2. Describe the position of the base, and of the apex, and the direction of the axis of the human heart; and also state what are its superior, inferior, and lateral limits in health.

3. Describe the form and length of the duodenum, and also the relations of its three divisions.

4. State from what various sources the arteries which ramify in the human lungs are derived, and the mode in which their corresponding veins terminate.

5. The relation of the male urethra to muscles.

6. Contrast the bones of the human pelvis of the male with the female.

7. Having made the dissection recommended in order to apply a ligature to the brachio cephalic artery, describe the boundaries of the vascular space where the aneurism needle should be introduced, and state what parts traversing the area of this space might be endangered during the operation.

8. Describe the boundaries of the space denominated the posterior inferior triangle of the neck, the circumstances which determine its extent, and the relative anatomy of the parts brought into view when the space is fully exposed.

*22nd September*, 1853, 2 *o'clock, p.m.*

### PHYSIOLOGY AND COMPARATIVE ANATOMY—*Examiner, Croker King, M.D.*

1. Contrast somatic with molecular death.

2. State some of the most remarkable effects which have resulted from the withdrawal of light from plants, or from animals.

3. Contrast the physical properties and the microscopical features of the white, with those of the yellow, fibrous tissue, and state to what uses these two structures have been applied in animal construction.

4. Describe an involuntary muscular fibre, and state in what situations such is found, and what functions it ministers to.

5. In order to retain fibrine in a state of solution what conditions are necessary?

6. Describe the choroid gland, tapetum, and pecten; state in what animals found, and their supposed uses.

7. Describe the choroid epithelium, its situation, appearance, and the mode of preparing it for examination.

8. Of what peculiar arrangement of the nervous system in invertebrata, does the fourth ventricle appear to be the remnant?

9. By the waste of what structures are the relative proportions of the urinary elements affected? With what compound is urea isomeric?

10. Does absorption take place from the stomach in vertebrata? if so, state its nature and how the fact has been proved.

11. In what diseased states of the system are the following changes effected in the blood: Fibrine increased or diminished in quantity, red corpuscles increased or diminished in number, albumen diminished in quantity.

12. What substitute have granivorous birds for teeth? Whence exists the necessity for this peculiar replacement of the usual organs for the reduction of food?

*23rd September*, 1853, *9 o'clock, a.m.*

### CHEMISTRY—*Examiner, Edmund Ronalds, Ph. D.*

1. How do you account for the diminution of temperature that is observed when snow and salt are mixed?

2. In what proportions, by volume, do oxygen and hydrogen unite to form steam, and what relation does the volume of the product bear to the sum of the volumes of the ingredients?

3. State the reactions which ensue; 1st, when steam is passed over metallic iron at a red heat; 2nd, when hydrogen gas is passed over the oxide of iron at the same temperature; and account for the apparently anomalous character of the results.

4. Show, by the use of symbols, the nature of the processes for obtaining nitric acid and nitric oxide.

5. Describe the English process for obtaining oil of vitriol; state how the English acid differs in composition from that of Nordhausen, and what impurity is generally contained in the commercial acid of high specific gravity.

6. Whence are the salts of ammonia now principally derived, and how would you prepare the liquor ammoniæ?

7. What salts are usually found in spring water, and why may it be safely preserved in leaden cisterns while rain water cannot?

8. Give an account of the method pursued in preparing iodine, describe the principal properties of the element, and state why hydriodic acid cannot be obtained by a process similar to that employed in preparing the corresponding chlorine compound?

9. Define and illustrate, by examples, the terms oxy-salt and haloid-salt, and explain the theory upon which the two classes of salts are united in one.

10. When equal parts, by weight, of dry carbonate of potassa and sulphur (*i.e.* 3 equivs. of the carbonate to 12 equivs. of sulphur) are fused together at about the boiling point of sulphur, what fixed products are formed, and what gas escapes?

11. Write, by means of symbols, the composition of the following salts:—Epsom salt, Rochelle salt, sesquicarbonate of ammonia, bichromate of potassa, sal ammoniac, alum, and subiodide of copper.

12. When phosphate of soda is added to an ammoniacal solution of magnesia, what is the composition of the precipitate?

13. Show, by means of symbols, the nature of the reactions which occur in preparing the sesquioxide of iron and calomel respectively.

14. How is the aqueous solution of prussic acid prepared, and how may its strength be conveniently ascertained?

15. What distinction is drawn by Liebig between putrefaction and fermentation? and state the theory of ferments propounded by that chemist.

16. How is sulphuric ether prepared, and what special precautions are requisite in conducting the process?

17. Describe the general properties of the group of natural organic alkaloids.

18. What is the constitution of the animal fats, and what decomposition is brought about in them by saponification?

19. How would you test the urine for albumen and sugar?

20. How would you detect the presence of uric acid in a calculus?

*23rd September*, 1853, *2 o'clock, p.m.*

### NATURAL PHILOSOPHY—*Examiner, George F. Shaw, F.T.C.D.*

1. A lever 4 feet long is attached at one end by a hinge to a fulcrum, and supported at the other by the finger. Five weights, of 1 lb. each, are hung from the lever at the distances of 6, 14, 20, 31, and 44 inches respectively from the fulcrum. Find the pressure on the finger.

2. A pressure of 27 lbs. makes with another pressure, unknown in magnitude, an angle of which the sine is ·473. They compound a resultant equal to 42 lbs. Find the magnitude of the unknown pressure, and the sine of the angle it makes with the resultant.

3. Find the velocity acquired by a railway train in running down a gradient of 2,164 feet, having a total fall of 26 feet, the force of gravity being 32·19, and the resistance of the air and friction being 9 lbs. per ton.

4. The pressure of a fluid on an immersed body is, at each point, proportional to the depth of immersion. By what simple apparatus is this law directly proved?

5. A gas contained in a vessel of 1,000 cubic inches, and kept at 100° C, sustains a pressure of 11 inches of mercury. How many inches will it sustain when compressed into a vessel of 450 inches, and raised to the temperature 120°?

NOTE.—Assume the gas's coefficient of expansion at ·00376.

6. Describe some experiments by which the latent heat (*a*) of water, and (*b*) of steam, can be measured, and state the result in each case.

7. Describe the mechanism (*a*) of the *reversing rod* in a locomotive, and (*b*) of the *air-pump* in a condenser, stating how any imperfection in the valves of the latter would affect the working of the engine.

8. I move the pole of a magnet to and fro beneath a card on which iron filings are strewn. State and explain the motion exhibited by the filings.

9. Explain the terms, free electricity, and latent electricity. Illustrate the latter (*électricité dissimulée*) by certain experiments and apparatus which involve it.

10. One kind of electric telegraph is founded on an effect of electric currents on the magnetic needle; another kind on an effect of the same currents on soft iron. Give some account of the mechanism in each case.

11. A small bright object advances from a great distance towards a concave spherical reflector. How does the image move?

12. (*a*) Look through a tumbler of water into the street. The movements of the passers by are reversed in direction. Explain this phenomenon.
    (*b*) Turn your back on the window and look again into the tumbler. You may see with each eye a *coloured* image of the window. Account for this.
    (*c*) Place a lighted candle on the table, and holding the tumbler above the level both of the eye and of the candle, look up at the surface of the water. A *bright* image of the flame is seen floating there. How is this formed?

13. The earth's figure being supposed spherical, how does astronomy determine its magnitude?

14. Knowing this magnitude, we can, by certain observations at different places on the earth, determine the magnitude of the sun and of the planets.

15. The distance of the sun is inferred from the solar parallax, and this from observations of the transits of Venus. State the principal steps of the latter process.

16. The distance of the earth from the sun being known, that of all the other planets is ascertained by further observations.

17. How do the stationary and retrograde appearances of the planets depend on the relative position of the planet, the sun, and the earth.

18. The earth's rotation diminishes the weight of bodies at its surface, and also tends to give them a motion toward the equator. Calculate the amount of each of these forces at the latitude of Dublin.

NOTE.—Sin. lat. = ·8023. Cos. lat. = ·5969.

*24th September*, 1853, 9 *o'clock*, *a.m.*

## BOTANY—*Examiner*, *George Dickie, M.D.*

1. State the nature of secondary deposits in some kinds of cellular tissue, and mention examples.

2. Define the term phyllodia, explain its derivation, state the homologies of the organs so called, give reasons for the opinions entertained regarding them, and mention examples.

3. Define the terms infundibuliform, labiate, and ligulate, as applied to the corolla. Give examples illustrative of each, and state their true nature.

4. Describe the different parts of a stamen. State their homologies, and give reasons for the opinion.

5. Give a general account of style, stigma, and placenta. State also their functions.

6. Mention the order in which the Anemoneæ and Clematideæ are included. State what characters they possess in common, and those peculiar to each.

7. Refer the following medicinal plants to their natural orders and classes:—Capsicum annuum, Croton Tiglium, Cycas circinalis, Humulus lupulus, Cetraria Islandica, Tamarindus Indica.

## ZOOLOGY.

1. Explain the application of the terms placentalia and non-placentalia. State also the orders comprehended under each respectively.

2. Describe the position and general characters of incisor, canine, and molar teeth. State also the leading peculiarities in the dentition of the Elephantidæ and Edentata, having reference to structure, relative size, form, and number.

3. Refer the Phocidæ to their place in the system of classification, and mention their leading peculiarities in reference to dentition, locomotion, respiration, and circulation.

4. Refer the Cursores to their proper class, explain why they are so called, and mention the peculiarities in their organization having reference to their habits.

5. State and define the class and order (giving the derivations of the names of each), to which the Tænia solium and Ascaris vermicularis respectively belong.

6. Refer the following to their classes and orders in the animal kingdom:—Cantharis vesicatoria, Physeter macrocephalus, Morrhua vulgaris, and Phasianus Gallus.

*24th September*, 1853, 2 *o'clock, p.m.*

MIDWIFERY—*Examiner, Dr. Dwyer.*

1. State the term of gestation in the human female, and how calculated.
2. Enumerate the symptoms of pregnancy in the order of their occurrence, and point out those most to be relied upon.
3. What is the earliest period of gestation at which a fœtus, if then expelled, may be viable?
4. Is this fact ever taken advantage of in practice, and under what circumstances?
5. Enumerate the symptoms which being present in a given case you would declare the patient in labour.
6. State the diagnostic between true and false pains, and the most frequent exciting causes of the latter, with the treatment best adapted to their relief.
7. Describe the course of a natural labour.
8. What are the causes of post partum hœmorrhage; and state the means most likely to prevent its occurrence.
9. At what period of pregnancy is unavoidable hœmorrhage most likely to occur, and give the pathological explanation of its occurrence at and after this period.
10. State the points of similarity and those of contrast between accidental and unavoidable hœmorrhage, both as regards symptoms and treatment.
11. Are there any supposed premonitory symptoms of convulsions? If so, state them, and the treatment most advisable for their removal.
12. Give a general outline of the treatment to be adopted when they do occur.

*24th September*, 1853, 2 *o'clock, p.m.*

DISEASES OF WOMEN AND CHILDREN—*Examiner, Dr. Dwyer.*

1. Give the diagnosis between polypus and prolapsus uteri.
2. Give the diagnosis between polypus and inversio uteri.
3. Describe a case of polypus uteri, stating the symptoms, local and general, with the modes of treatment recommended.
4. Describe a case of laryngismus stridulus; state its most frequently exciting causes and treatment.
5. Describe the mode of performing vaccination.
6. What circumstances are to be taken into consideration in your selection of a vaccine vesicle from which lymph may be obtained?

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## HONOR EXAMINATION FOR CANDIDATES PASSED FOR THE DEGREE OF M.D.

*27th September*, 1853, 9 *o'clock, a.m.*

NATURAL PHILOSOPHY—*Examiner, G. F. Shaw, F.T.C.D.*

1. The terms *temperature, quantity of heat, capacity for heat*, denote certain conditions or properties of bodies. What are these conditions? and by what measurable quantities are they supposed to be exactly represented?
2. Describe some approved pyrometer (Daniell's, Ramsden's, Borda's, &c.), and the mode of using it.
3. Explain the mode of estimating temperature by the weight thermometer.
4. (*a*) In the early experiments on the expansion of gases what was the principal source of error?
   (*b*) How did Gay-Lussac avoid this?
5. What effect on the boiling point of a liquid is produced by—
   (*a*) Dissolving salts in it?
   (*b*) Diffusing insoluble powders in it?
   (*c*) Previously boiling it?
   (*d*) Cleaning the vessel that contains it, by boiling it in sulphuric acid and then rinsing it with distilled water?
   (*e*) Taking it up a mountain? or—
   (*f*) Down into a mine?
6. A permanent gas and a vapour are submitted, at the same low temperature to two equal, small, and gradually-increasing pressures. Do both obey the same law of change in their elastic force?
7. Describe the principal parts of a medical galvanic machine, stating the use of its fine and coarse wires, the rotating armature, the central bundle of soft iron rods, &c.
8. A wire is bent into the form of a rectangle, and a current of electricity transmitted along it. Supposing it fixed, while another and similar wire, through which an opposite current runs, is suspended on a pivot, and brought parallel to the former, what action takes place between them?
9. By what experiments has Dr. Faraday disproved the action of any electric, unknown, or preternatural force in the phenomena of table moving?
10. (*a*) What change or changes in the condition of a ray of light is denoted by the word polarization?
    (*b*) What are the most usual methods by which light is polarized artificially?

*27th September*, 1853, 2 *o'clock, p.m.*

### Theory and Practice of Medicine—*Examiner, Professor Banks.*

1. In the course of what diseases does typhoid pneumonia occur?
2. What are the characters which distinguish typhoid from sthenic pneumonia?
3. How would you treat typhoid pneumonia?
4. The symptoms of acute arachnitis, and the treatment.
5. State the means of discriminating between mucous and purulent urine.
6. What influence is exercised on the urine by injuries to the loins?
7. Are you aware of any peculiarity found to exist in the urine of a large proportion of individuals labouring under mental alienation?
8. Describe a case of ureal poisoning, and give the explanation offered by Frerichs to account for the symptoms.
9. How does the blood in chlorosis differ from that in hæmorrhagic diseases?
10. What are the conclusions arrived at by Dubois and Grisolle, respecting the influence of pregnancy and the puerperal state on the progress of phthisis?
11. What are the respective probabilities of the prolongation of life in true and false aneurisms?
12. What treatment would you employ for the purpose of procuring sleep in fever?

*28th September*, 1853, 9 *o'clock, a.m.*

### Chemistry—*Examiner, Edmund Ronalds, Ph. D.*

1. What instrument is employed in ascertaining the specific gravity of liquids, and what simultaneous observation is required to insure accuracy in the result?
2. What were the compounds whose constitution first suggested the existence of amidogen?
3. Define the term, polybasic acid, and illustrate by examples the composition of the salts of such acids.
4. What is the composition of cream of tartar, and how is tartaric acid obtained from it?
5. How may urea be obtained from the secretion in which it is naturally contained?
6. How may urea be obtained artificially?
7. Urea contains $C_2H_4N_2O_2$; how would you represent these elements as combined to form—

   1st, Cyanate of oxide of ammonium,
   2nd, Carbamide,

   and what elements must be added in order to explain its conversion into carbonate of ammonia?
8. What process may be very generally adopted for the isolation of a sparingly soluble organic base, and of the acid with which it may be combined in the juices of plants?
9. What are considered the characteristic tests for morphia?
10. What is the composition of chloroform, and what products result when it is added to an alcoholic solution of potassa?
11. When urine becomes alkaline by exposure to the air, it generally deposits a granular crystalline precipitate; what is the cause of the alkalinity, and what the nature of the precipitate?
12. How much iodide of potassium should be obtained theoretically from one ounce of iodine?

    N.B.—Equiv. of iodine, 127.
    ,, potassium 39.
13. Under what circumstances is sugar converted into lactic, and ultimately into butyric acid?
14. How would you proceed to test a complex organic liquid for arsenious acid, and what reactions must be clearly exhibited in order to prove its presence?
15. To what chemical ingredients does the gastric juice appear to owe its power of dissolving those plastic materials of food which are insoluble in water?
16. What is the function ascribed by Liebig to the phosphate of soda contained in the blood of the carnivora, and why can the soda in this case not be replaced by potash?
17. What facts may be adduced to prove that starch is converted into fat, in the animal economy, and what is the general nature of the process by which such transformations are effected?
18. How do you account for the different effects produced in the organism, by water containing different proportions of saline matter?
19. Why is milk capable alone, without other food, of sustaining life?
20. How would you ascertain the quantity of sugar contained in a specimen of diabetic urine?

*28th September*, 1853, 2 *o'clock, p.m.*

### Surgery—*Examiner, James S. Hughes, M.D., F.R.C.S.I.*

1. Name the different forms of Traumatic Aneurism that may be met with at the bend of the arm.
2. Describe the symptoms of a diffused false brachial aneurism.
3. State in detail the treatment that you would adopt in a case of diffused false brachial aneurism.

4. Give a description of Iritis, enumerate its various causes, and lay down an outline of the treatment that you would pursue in the Syphilitic form of the disease.

5. Describe Chopart's operation of partial amputation of the foot.

6. Point out the accidents and diseases in which you would have recourse to Chopart's operation.

*29th September*, 1853, 9 *o'clock, a.m.*

### Botany—*Examiner, Dr. Dickie.*

1. Describe the kinds of motion observed in the fluid contents of the elementary tissues of plants, and give examples.

2. State any general physiological principles which deserve attention in collecting roots, leaves, &c., for medicinal use, and illustrate by examples.

3. Name the plants, and mention their class and order, whose fruits are employed in medicine, and which are respectively called *galbulus* and *lomentum.* Describe also the structure and true nature of the fruits in question.

4. State the principal medicinal agents derived from the Coniferæ, name also the plants which yield them. Describe the characters of the order alluded to, in reference to the elementary tissues, and the structure of the fruit and seed.

5. Name the plants usually supposed to yield the following:—Galbanum, Assafætida, and Rhubarb. State and give the characters of the class, sub-class, and natural order to which they respectively belong.

6. What plants yield the Irish moss and Iceland moss. Name and define their class and orders.

*29th September*, 1853, 2 *o'clock, p.m.*

### Midwifery, &c.—*Examiner, Dr. Dwyer.*

1. Enumerate the presentations of the fœtus at term, in the order most in keeping with its safe delivery, and give the explanation thereof with each.

2. State the different modes of inducing premature labour, specially noting that most to be preferred.

3. State the cases in midwifery practice in which podalic version is had recourse to, placing first in order those where such a mode of delivery is necessary.

4. What are the conditions occasionally arising in the course of an otherwise natural labour that may require instrumental delivery?

5. What would guide you as to the necessity for, and the mode of delivery, in puerperal convulsions?

6. In retroversio uteri how would you proceed to pass the catheter, and why?

7. State the diagnostic between corroding ulcer and scirrhus of the uterus.

8. Describe Bryce's test in vaccination.

9. Describe the appearances in a case of successful secondary vaccination.

10. Describe a case of hydrencephaloid disease.

11. How does it differ as regards treatment from congestion of the brain?

*30th September*, 1853, 9 *o'clock, a.m.*

### German—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

#### I.

1. What European languages compose the Teutonic family?

2. By what link are they connected with the Semitic and Greco-Latin languages, according to Bopp and Grimm?

3. What is the general name given by modern philologists to this whole group of languages?

4. What are the great divisions of the Teutonic, ancient and modern?

5. What class of English words are derived from the Teutonic?

6. What are the principal changes of letters which the English has undergone with respect to the German, and what is the general limit of those changes?

7. What trace of German cases is to be found in English?

#### Göthe.

1. The principal circumstances of his life?

2. His chief works?

3. What rhythm did he use in his poetry?

4. What philosophical and literary influences acted most on him at different periods of his life?

5. When did he write Faust?

#### II.

1. What is the difference between separable and inseparable particles?

2. What difference is there in their pronunciation?

3. What is the sign of the past participle?

4. When is it omitted?

5. What is the position of the preposition *zu*, before the infinitives of verbs compounded with separable and inseparable particles respectively? Give examples.

6. Explain the force of the particles *ver, zer, be, ent, er.* Give their Latin or English equivalents, and examples.

7. When are adjectives declined, and when not? Give examples.
8. Explain the causes of this difference.
9. What is the form of the German adverb?

### III.

Translate into German:

In the capital all constraint is banished as much as possible. Compliments are, at bottom, just as irksome to him who pays them, as to him who receives them. People are allowed to eat what they have a mind, and as much as they like; there is no pressing. Titles are only used in office; in social life they would only discourage enjoyment. In short a good host seeks to banish every thing which can disturb the comfort of his guests. People come, sit down, stand, just as they please. They depart without taking leave.—*Kotzebue, die deutschen Kleinstädter.*

### IV.

Du biſt vielleicht, mein lieber Leſer, ſchon irgendwo, nach mannichfachem Auf—und Abtreiben in der Welt, an einen Ort gekommen, wo Dir es wohl war; die Jedwedem eingeborene Liebe zu eignem Heerd und ſtillen Frieden ging wieder auf in Dir; Du, meinteſt, die Heimath blühe mit allen Blumen der Kindheit und der allerreinſten, innigſten Liebe, wieder aus theuren Grabſtätten hervor, und hier müſſe gut wohnen und Hütten bauen ſeyn. Ob Du Dich darin geirrt, und den Irrthum nachher ſchmerzlich abgebüßt haſt, das ſoll hier nichts zur Sache thun, und Du wirſt Dich auch ſelbſt wohl mit dem herben Nachſchmack nicht freiwillig betrüben wollen. Aber rufe jene unausſprechliche ſüße Ahnung, jenen engliſchen Gruß des Friedens wieder in Dir herauf, und Du wirſt ungefähr wiſſen können, wie dem Ritter Huldbrand während ſeines Lebens auf der Seeſpitze zu Sinne war.

*La Motte Fouqué. Undine.*

30*th September*, 1853, 9 *o'clock, a.m.*

## FRENCH—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

### I.

1. What was the language spoken by the inhabitants of Gaul at the time of the introduction of Christianity, viz., in the second century?
2. Give proofs of this.
3. What changes had this language undergone in the ninth century? What is the proper denomination of it? And what is generally considered the most ancient monument of it?
4. What is the origin of the French article definite?—indefinite?—partitive? What difference is there between the use of the articles in old and in modern French?
5. The article is sometimes used in French and not in English, and *vice versa;* state the rules in accordance with which this takes place.
6. What is the origin of the use of the two auxiliary verbs?
7. To what do you trace the form of the French future?
8. Explain the manner in which the third and fourth conjugations, viz., those in *oir* and and *re* were derived from the Latin.

### II.—SEVENTEENTH CENTURY.

The second portion of this century is called by Voltaire and many others "*le siècle de Louis quatorze;*" show in what respect the statement of the influence of this king on literature is exaggerated and unjust towards his predecessors; mention the authors of that age, the period about which they wrote their best works, the origin of the French Academy, and the date and influence of the *Hôtel Rambouillet.*

### III.

Translate into French:—

1. The Swedes live a long time when they do not weaken themselves by the immoderate use of strong liquors and wines, which the northern nations seem to like so much the more, as nature has refused them to them.
2. There are not more than nine millions of our livres in specie (*coined money*) in the whole country. The public bank, which is the oldest in Europe, was introduced there from necessity, because the payments being made in copper and iron coin, the carriage of it was too difficult.
3. Disguised as a peasant.

VOLTAIRE—*Charles XII.*

### IV.

Une grenouille vit un bœuf
Qui lui sembla de belle taille.
Elle, qui n'était pas grosse en tout comme un œuf,
Envieuse, s'étend, et s'enfle, et se travaille,
Pour égaler l' animal en grosseur;
Disant: Regardez bien, ma sœur,
Est-ce assez? dites-moi; n'y suis-je point encore?—
Nenni.—M'y voici donc?—Point du tout.—M'y voila?—
Vous n'en approchez point. La chétive pécore
S'enfla si bien qu' elle creva.
Le monde est plein de gens qui ne sont pas plus sages:
Tout bourgeois veut bâtir comme les grands seigneurs;
Tout petit prince a des ambassadeurs;
Tout marquis veut avoir des pages.

LA FONTAINE—*Fables.*

*30th September*, 1853, 2 *o'clock, p.m.*

### MATERIA MEDICA, PHARMACY, AND MEDICAL JURISPRUDENCE.

*Examiner, Dr. Aquilla Smith.*

1. Reduce 12·67 fluid ounces wine measure into imperial measure.
2. What alteration is produced in the urine of a patient by the administration of benzoic acid?
3. Describe the process for preparing dilute hydrocyanic acid, according to the Dublin Pharmacopœia, and state the method of determining the per centage of real acid.
4. If castor oil should be adulterated with any common fixed oil, how would you detect the fraud? What means would you adopt to deprive rancid castor oil of its disagreeable odour and taste, as well as its acrimony?
5. Describe and explain Dr. Henry Madden's process for detecting a small quantity of water in iodine.
6. In preparing pure iodine, according to the Dublin Pharmacopœia, it frequently happens that white acicular crystals are deposited on the bottom of the matrass, in the first stage of the process. What is the composition of the white crystals, and why are they directed to be removed?
7. Reduce 167·5° F to the centigrade scale.
8. State the exact proportion of the ingredients in the compound powder of jalap, and the compound powder of scammony of the Dublin Pharmacopœia.
9. Prescribe red iodide of mercury in solution, and state its dose.
10. What are the signs from which you would conclude that a new-born child had not been more than six months *in utero*?
11. Describe the symptoms and treatment of poisoning by the berries of belladonna, and give a description of the ripe berry.
12. State the precautions necessary to be observed when examining blood-stains with the microscope.

*1st October*, 1853, 9 *o'clock, a.m.*

### HUMAN ANATOMY.—*Examiner, Croker King, M.D.*

1. State the relations of the mouth of the sac in the hernia called superior or external direct, and also mention the anatomical points of resemblance, and also of difference between this affection and the ordinary oblique form of hernia.
2. What results would follow from paralysis of the fifth cranial or trigeminal nerve?
3. State what changes take place in the elements of the respiratory passages, from the trachea to the pulmonary air cells.
4. Describe the relations of the three divisions of the rectum in the male.
5. Describe the boundaries and the communications of the third cerebral ventricle.
6. What mechanical advantages are obtained by the anterior convexity, the twisted form of the shaft, and the obliquity of the neck of the human femur?

*1st October*, 1853, 2 *o'clock, p.m.*

### PHYSIOLOGY AND COMPARATIVE ANATOMY.—*Examiner, Croker King, M.D.*

1. What appearances are presented by vertical and transverse sections of enamel placed in the field of a microscope? Describe its mode of development, and state what structure of the lower animals it resembles.
2. Is the biliary secretion solely excrementitious, or has it a purpose to serve in connexion with the digestive function? Support your views by appealing to comparative anatomy, and by stating the results which have been obtained by experiment.
3. Through what channel is the alimentary matter introduced into the system in the invertebrata?
4. How long does a pulse wave usually take to travel from the heart to the extreme arteries? Suppose the interval was increased, or on the contrary was diminished, what inference would you draw in each case as to the state of the individual's health?
5. The duration of vital activity is in the inverse ratio of its energy.—Examples.
6. What circumstances in the construction of the human skeleton prove that the erect position is natural to man?
7. Describe some of the most striking changes which take place in the nervous system of insects during their metamorphose from larva to imago?
8. What facts in comparative anatomy support the assertion that the absorbent system effects changes in the materials absorbed, so as to fit them for introduction into the blood?
9. Suppose the function of respiration to be suspended in the case of a mammal, and also of a reptile, in which case would the arrest of the general circulation most rapidly ensue. Assign anatomical reasons for your views.
10. Describe, in general terms, the forms and functions of the tongue in the four classes of vertebrata, enumerating any peculiar adaptations, for special purposes, with which you are acquainted.

## EXAMINATION FOR THE DEGREE OF A.M.

*27th September*, 1853.

GREEK—*Examiner, Charles Mac Douall, A.M.*

I.—Translate the following passages :—

1. SAPPHO, CARM. I. :

Ποικιλοφρον ἀθάνατ' Ἀφροδίτα,
παῖ Δίος δολόπλοκε, λίσσομαί σε,
μή μ' ἄσαισι μηδ' ὀνίαισι δάμνα, πότνια, θῦμον.

ἀλλὰ τυῖδ' ἔλθ', αἴ ποτα κἀτέρωτα
τᾶς ἐμᾶς αὔδας ἀΐοισα πήλυ
ἔκλυες, πάτρος δὲ δόμον λίποισα χρύσεον ἦλθες

ἄρμ' ὑποζεύξαισα· κάλοι δέ σ' ἆγον
ὤκεες στροῦθοι περὶ γᾶς μελαίνας,
πύκνα δίνεντες πτέρ' ἀπ' ὠράνω αἰθέρος διὰ μέσσω·

αἶψα δ' ἐξίκοντο· τὺ δ', ὦ μάκαιρα,
μειδιάσαισ' ἀθανάτῳ προσώπῳ,
ἤρε', ὅ ττι δηὖτε πέπονθα, κὤττι δή σε κάλημι,

κὤττι μεν μάλιστα θέλω γένεσθαι
μαινόλᾳ θύμῳ· "τίνα δηὖτ'," ἐπήρεν,
"λαῖς ἄγην εἰς σὰν φιλότατα; τίς, Ψάπφοι, σ' ἀδικήει;

καὶ γάρ, αἰ φεύγει, ταχέως διώξει·
αἰ δὲ δῶρα μὴ δέκετ', ἄλλα δώσει·
αἰ δὲ μὴ φιλεῖ, ταχέως φιλήσει κωὐκ ἐθέλοισαν."

ἔλθε μοι καὶ νῦν, χαλεπᾶν δὲ λῦσον
ἐκ μεριμνᾶν, ὄσσα δέ μοι τέλεσσαι
θῦμος ἰμέρρει, τέλεσον· σὺ δ' αὔτα σύμμαχος ἔσσο.

2. PINDAR. OLYMP. VII, 1–12 :

Στρ. α'.

Φιάλαν ὡς εἴ τις ἀφνειᾶς ἀπὸ χειρὸς ἑλὼν
ἔνδον ἀμπέλου καχλάζοισαν δρόσῳ
δωρήσεται
νεανίᾳ γαμβρῷ προπίνων οἴκοθεν οἴκαδε, πάγχρυσον κορυφὰν κτεάνων,
συμποσίου τε χάριν κᾶδός τε τιμάσαις ἐόν, ἐν δὲ φίλων
παρεόντων θῆκέ μιν ζαλωτὸν ὁμόφρονος εὐνᾶς·

Ἀντ. α'.

καὶ ἐγὼ νέκταρ χυτόν, Μοισᾶν δόσιν, ἀθλοφόροις
ἀνδράσιν πέμπων, γλυκὺν καρπὸν φρενός,
ἱλάσκομαι,
Οὐλυμπίᾳ Πυθοῖ τε νικώντεσσιν. ὁ δ' ὄλβιος, ὃν φᾶμαι κατέχοντ' ἀγαθαί.
ἄλλοτε δ' ἄλλον ἐποπτεύει Χάρις ζωθάλμιος ἁδυμελεῖ
θαμὰ μὲν φόρμιγγι παμφώνοισί τ' ἐν ἔντεσιν αὐλῶν.

3. THEOCRIT. IDYL. XXI, 22–35:

ΑΣΦΑΛΙΩΝ.

Ψεύδοντ', ὦ φίλε, πάντες, ὅσοι τὰς νύκτας ἔφασκον
τῶ θέρεος μινύθειν, ὅτε τἄματα μακρὰ φέρει Ζεύς·
ἤδη μυρί' ἐσεῖδον ὀνείρατα, κοὐδέπω ἀώς.
μὴ λαθόμαν τί τὸ χρῆμα χρόνον ταὶ νύκτες ἔχοντι;

ΕΤΑΙΡΟΣ.

Ἀσφαλίων, μέμφῃ τὸ καλὸν θέρος; οὐκ ἄρ' ὁ καιρὸς
αὐτομάτως παρέβα τὸν ἑὸν δρόμον, ἀλλὰ τὸν ὕπνον
ἁ φροντὶς κόπτοισα μακρὰν τὰν νύκτα ποιεῖ τίν.

ΑΣΦΑΛΙΩΝ.

ἆρ' ἔμαθες κρίνειν ποκ' ἐνύπνια; χρηστὰ γὰρ εἶδον.
οὔ σε θέλω τὠμῶ φαντάσματος ἦμεν ἄμοιρον·
ὡς καὶ τὰν ἄγραν, τὠνείρατα πάντα μερίζεν.
ὅς γὰρ ἂν εἰκάξῃ κατὰ τὸν νόον, οὗτος ἄριστος
ἔστιν ὀνειροκρίτας· ὁ διδάσκαλός ἐστι, παρ' ᾧ νοῦς.
ἄλλως καὶ σχολὰ ἐντί· τί γὰρ ποιῆν ἂν ἔχοι τις
κείμενος ἐν φύλλοις ποτὶ κύματι, μηδὲ καθεύδων;

II.—1. Characterise Aeolo-Doric literature, as distinguished from Ionic, and show how both are comprehended and interwoven in the Attic development.

2. (*a*) Mention the periods at which Sappho, Pindarus, and Theocritus flourished. (*b*) Name their respective birth-places, and also such cities or courts as were frequented, and made the themes of song, by any of them.

3. Name any lyric poetesses who were contemporaries of Sappho or Pindarus, and are closely associated with either in the history of literature.

4. Name, in chronological order, the most eminent lyric poets of Hellas, distinguishing two Ionic contemporaries and rivals of Pindarus.

5. Mention (*a*) two bucolic poets who were contemporary (or nearly so) with Theocritus; and (*b*) the best-known writers of pastoral or piscatory idyls in Latin, and in the languages of modern Europe—our own included.

6. (*a*) Analyze the Pindaric dialect, accounting for the various elements which enter into its composition. (*b*) Show in what respects, and on what principles, this dialect is partially—and but partially—represented by the language of the lyric portions of Attic tragedy. (*c*) Compare, in the same way, with the metrical structure of the Pindaric odes, that of the antistrophic chaunts of a tragic chorus.

7. (*a*) What variety of the dactylic hexameter verse is commonly termed "bucolic?" (*b*) Does the metre of Virgilius' Eclogues closely follow, in this particular, that of their Sicilian models?

8. (*a*) Scan the third and fifth Sapphic stanzas (printed above), as composed of choriambi and of such feet as "epichoriambic" measures admit as substitutes; marking all the syllables with the signs of their long or short time, and those on which—in this metre—a stress of the voice falls with the sign of the acute accent. (*b*) Notice two restrictions,—affecting the quantity of the fourth syllable of a line, and the place of the principal or "caesural" pause,—which are not operative in the above stanzas, but rule most of the Sapphic lines of Horatius. (*c*) In respect to these two combinations,—

aureos educit in astra, nigroque | invidet Orco,

and

unde vocalem temere insecutæ | Orphea silvæ,—

say whether is more in conformity with the Greek model as exemplified in the first Ode of Sappho.

9. Write down, in the Attic forms, and with Attic accents, all the words in the three preceding passages which exhibit Aeolic or Doric peculiarities.

III.—Translate Aristoph. Ranae, 907, &c.

ΕΥΡΙΠΙΔΗΣ.

Καὶ μὴν ἐμαυτὸν μέν γε, τὴν ποίησιν οἷός εἰμι,
ἐν τοῖσιν ὑστάτοις φράσω· τοῦτον δὲ πρῶτ' ἐλέγξω,
ὡς ἦν ἀλαζὼν καὶ φέναξ, οἵοις τε τοὺς θεατὰς
ἐξηπάτα, μωροὺς λαβὼν παρὰ Φρυνίχῳ τραφέντας.
πρώτιστα μὲν γὰρ ἕνα τιν' ἂν καθῖσεν ἐγκαλύψας,
'Αχιλλέα τιν' ἢ Νιόβην, τὸ πρόςωπον οὐχὶ δεικνύς,
πρόσχημα τῆς τραγῳδίας, γρύζοντας οὐδὲ τουτί·

ΔΙΟΝΥΣΟΣ.

μὰ τὸν Δί', οὐ δῆθ'.

ΕΥΡΙΠΙΔΗΣ.

ὁ δὲ χορός γ' ἤρειδεν ὁρμαθοὺς ἂν
μελῶν ἐφεξῆς τέτταρας ξυνεχῶς ἄν· οἱ δ' ἐσίγων.
κᾄπειτ', ἐπειδὴ ταῦτα ληρήσειε καὶ τὸ δρᾶμα
ἤδη μεσοίη, ῥήματ' ἂν βόεια δώδεκ' εἶπεν,
ὀφρῦς ἔχοντα καὶ λόφους, δείν' ἄττα μορμορωπά.

* * * * *

ἀλλ', ὡς παρέλαβον τὴν τέχνην παρὰ σοῦ τὸ πρῶτον εὐθὺς
οἰδοῦσαν ὑπὸ κομπασμάτων καὶ ῥημάτων ἐπαχθῶν,
ἴσχνανα μὲν πρώτιστον αὐτὴν καὶ τὸ βάρος ἀφεῖλον
ἐπυλλίοις καὶ περιπάτοις καὶ τευτλίοισι λευκοῖς,
χυλὸν διδοὺς στωμυλμάτων, ἀπὸ βιβλίων ἀπηθῶν·
εἶτ' ἀνέτρεφον μονῳδίαις, Κηφισοφῶντα μιγνύς·
εἶτ' οὐκ ἐλήρουν ὅ τι τύχοιμ', οὐδ' ἐμπεσὼν ἔφυρον,
ἀλλ' οὐξιὼν πρώτιστα μέν μοι τὸ γένος εἶπεν εὐθὺς
τοῦ δράματος.

ΑΙΣΧΥΛΟΣ.

κρεῖττον γὰρ ἦν σοι, νὴ Δί', ἢ τὸ σαυτοῦ.

ΕΥΡΙΠΙΔΗΣ.

ἔπειτ' ἀπὸ τῶν πρώτων ἐπῶν οὐδὲν παρῆκ' ἂν ἀργόν,
ἀλλ' ἔλεγεν ἡ γυνή τέ μοι χὠ δοῦλος οὐδὲν ἧττον,
χὠ δεσπότης, χἠ παρθένος, χἠ γραῦς ἄν.

ΑΙΣΧΥΛΟΣ.

εἶτα δῆτα
οὐκ ἀποθανεῖν σε ταῦτ' ἐχρῆν τολμῶντα;

ΕΥΡΙΠΙΔΗΣ.

μὰ τὸν 'Απόλλω·
δημοκρατικὸν γὰρ αὔτ' ἔδρων.

ΔΙΟΝΥΣΟΣ.

τοῦτο μὲν ἔασον, ὦ τᾶν.
οὐ σοὶ γάρ ἐστι περίπατος κάλλιστα περί γε τούτου.

ΕΥΡΙΠΙΔΗΣ.

ἔπειτα τουτουσὶ λαλεῖν ἐδίδαξα—

ΑΙΣΧΥΛΟΣ.

φημὶ κἀγώ.
ὡς πρὶν διδάξαι γ' ὤφελες μέσος διαρραγῆναι.

ΕΥΡΙΠΙΔΗΣ.

λεπτῶν τε κανόνων εἰςβολὰς, ἐπῶν τε γωνιασμούς,
οἰκεῖα πράγματ' εἰςάγων, οἷς χρώμεθ', οἷς ξύνεσμεν,

ἐξ ὧν γ' ἂν ἐξηλεγχόμην· ξυνειδότες γὰρ οὗτοι
ἤλεγχον ἄν μου τὴν τέχνην· ἀλλ' οὐκ ἐκομπολάκουν
ἀπὸ τοῦ φρονεῖν ἀποσπάσας, οὐδ' ἐξέπληττον αὐτούς,
Κύκνους ποιῶν καὶ Μέμνονας κωδωνοφαλαροπώλους.

* * * * *

ΑΙΣΧΥΛΟΣ.

ἀποκρύπτειν χρὴ τὸ πονηρὸν τόν γε ποιητήν,
καὶ μὴ παράγειν μηδὲ διδάσκειν. τοῖς μὲν γὰρ παιδαρίοισιν
ἔστι διδάσκαλος ὅστις φράζει, τοῖς ἡβῶσιν δὲ ποιηταί.
πάνυ δὴ δεῖ χρηστὰ λέγειν ἡμᾶς.
ἀλλ', ὦ κακόδαιμον, ἀνάγκη
μεγάλων γνωμῶν καὶ διανοιῶν ἴσα καὶ τὰ ῥήματα τίκτειν.
κἄλλως εἰκὸς τοὺς ἡμιθέους τοῖς ῥήμασι μείζοσι χρῆσθαι·
καὶ γάρ τοῖς ἱματίοις ἡμῶν χρῶνται πολὺ σεμνοτέροισιν.

IV.—1. Explain succinctly the references in the above passage to the phases assumed by Attic tragedy from the time of Phrynichus to that of Euripides.

2. State accurately the laws of the two metres exemplified in this extract.

*27th September*, 1853.

## GREEK—*Examiner, Charles Mac Douall, A.M.*

I.—Translate in Attic prose the following report or abstract of a speech in the *Commentarii* of Julius Cæsar, and accentuate your version throughout with accuracy:

Ariovistus respondit: Transisse sese, non sua sponte, sed rogatum et arcessitum a Gallis; non sine magna spe magnisque præmiis domum propinquosque reliquisse; sedes habere in Gallia ab ipsis concessas, obsides ipsorum voluntate datos; stipendium capere iure belli, quod victores victis imponere consuerint; non sese Gallis, sed Gallos sibi bellum intulisse; omnes Galliæ civitates ad se oppugnandum venisse, ac contra se castra habuisse; eas omnes copias a se uno prœlio fusas ac superatas esse; si iterum experiri velint, iterum paratum sese decertare; si pace uti velint, iniquum esse de stipendio recusare, quod sua voluntate ad id tempus pependerint. Amicitiam Populi Romani sibi ornamento et præsidio, non detrimento, esse oportere, idque se ea spe petisse. si per Populum Romanum stipendium remittatur et dedititii subtrahantur, non minus libenter sese recusaturum Populi Romani amicitiam quam appetierit. Nunquam ante hoc tempus exercitum Populi Romani Galliæ provinciæ fines egressum. Quid sibi vellet? cur in suas possessiones veniret? provinciam suam hanc esse Galliam, sicut illam nostram. ut ipsi concedi non oporteret, si in nostros fines impetum faceret, sic item nos esse iniquos, qui in suo iure se interpellaremus. Debere se suspicari, simulata Cæsarem amicitia, quod exercitum in Gallia habeat, sui opprimendi causa habere. qui nisi decedat atque exercitum deducat ex his regionibus, sese illum non pro amico, sed pro hoste habiturum: quod si eum interfecerit, multis sese nobilibus principibusque Populi Romani gratum esse facturum; id se ab ipsis per eorum nuntios compertum habere, quorum omnium gratiam atque amicitiam eius morte redimere posset. quod si decessisset ac liberam possessionem Galliæ sibi tradidisset, magno se illum præmio remuneraturum, et, quaecumque bella geri vellet, sine ullo eius labore et periculo confecturum.

II.—1. Translate in either English or Latin the following Platonic discussion between Socrates and Cebes:

“Ἀποκρίνου δή,” ἦ δ' ὅς, “ᾧ ἂν τί ἐγγένηται σώματι, ζῶν ἔσται;” “Ὧι ἂν ψυχή,” ἔφη. “Οὐκοῦν ἀεὶ τοῦτο οὕτως ἔχει;” “Πῶς γὰρ οὐχί;” ἦ δ' ὅς. “Ἡ ψυχὴ ἄρα, ὅ τι ἂν αὐτὴ κατάσχῃ, ἀεὶ ἥκει ἐπ' ἐκεῖνο φέρουσα ζωήν;” “Ἥκει μέντοι,” ἔφη. “Πότερον δ' ἔστι τι ζωῇ ἐναντίον, ἢ οὐδέν;” “Ἔστιν,” ἔφη. “Τί;” “Θάνατος.” “Οὐκοῦν ψυχὴ τὸ ἐναντίον ᾧ αὐτὴ ἐπιφέρει ἀεὶ οὐ μή ποτε δέξηται, ὡς ἐκ τῶν πρόσθεν ὡμολόγηται;” “Καὶ μάλα σφόδρα,” ἔφη ὁ Κέβης. “Τί οὖν; τὸ μὴ δεχόμενον τὴν τοῦ ἀρτίου ἰδέαν τί νῦν δὴ ὠνομάζομεν;” “Ἀνάρτιον,” ἔφη. “Τὸ δὲ δίκαιον μὴ δεχόμενον, καὶ ὃ ἂν μουσικὸν μὴ δέχηται;” “Ἄμουσον,” ἔφη, “τὸ δὲ ἄδικον.” “Εἶεν· ὃ δ' ἂν θάνατον μὴ δέχηται, τί καλοῦμεν;” “Ἀθάνατον,” ἔφη. “Οὐκοῦν ψυχὴ οὐ δέχεται θάνατον;” “Οὔ.” “Ἀθάνατον ἄρα ἡ ψυχή;” “Ἀθάνατον.” “Εἶεν,” ἔφη· “τοῦτο μὲν δὴ ἀποδεδεῖχθαι φῶμεν; ἢ πῶς δοκεῖ;” “Καὶ μάλα γε ἱκανῶς, ὦ Σώκρατες.” “Τί οὖν;” ἦ δ' ὅς· “καὶ περὶ τοῦ ἀθανάτου, εἰ μὲν ἡμῖν ὁμολογεῖται καὶ ἀνώλεθρον εἶναι, ψυχὴ ἂν εἴη, πρὸς τῷ ἀθάνατος εἶναι, καὶ ἀνώλεθρος· εἰ δὲ μή, ἄλλου ἂν δέοι λόγου.” “Ἀλλ' οὐδὲν δεῖ,” ἔφη, “τούτου γε ἕνεκα· σχολῇ γὰρ ἄν τι ἄλλο φθορὰν μὴ δέχοιτο, εἰ τό γε ἀθάνατον, ἀΐδιον ὄν, φθορὰν δέξεται.” “Ὁ δέ γε θεός, οἶμαι,” ἔφη ὁ Σωκράτης, “καὶ αὐτὸ τὸ τῆς ζωῆς εἶδος, καὶ εἴ τι ἄλλο ἀθάνατόν ἐστι, παρὰ πάντων ἂν ὁμολογηθείη μηδέποτε ἀπόλλυσθαι.” “Παρὰ πάντων μέντοι, νὴ Δία,” ἔφη, “ἀνθρώπων τέ γε καὶ ἔτι μᾶλλον, ὡς ἐγῷμαι, παρὰ θεῶν.” “Ὁπότε δὴ τὸ ἀθάνατον καὶ ἀδιάφθορόν ἐστιν, ἄλλο τι ψυχὴ ἤ, εἰ ἀθάνατος τυγχάνει οὖσα, καὶ ἀνώλεθρος ἂν εἴη;” “Πολλὴ ἀνάγκη.” “Ἐπιόντος ἄρα θανάτου ἐπὶ τὸν ἄνθρωπον, τὸ μὲν θνητόν, ὡς ἔοικεν, αὐτοῦ ἀποθνήσκει, τὸ δ' ἀθάνατον σῶν καὶ ἀδιάφθορον οἴχεται ἀπιόν, ὑπεκχωρῆσαν τῷ θανάτῳ.” “Φαίνεται.” “Παντὸς μᾶλλον ἄρα,” ἔφη, “ὦ Κέβης, ψυχὴ ἀθάνατον καὶ ἀνώλεθρον· καὶ τῷ ὄντι ἔσονται ἡμῶν αἱ ψυχαὶ ἐν Ἅιδου.” “Οὔκουν ἔγωγε, ὦ Σώκρατες,” ἔφη, “ἔχω παρὰ ταῦτα ἄλλο τι λέγειν οὐδὲ πῃ ἀπιστεῖν τοῖς λόγοις.” “Ἀλλὰ τόδε γ',” ἔφη, “δίκαιον διανοηθῆναι, ὅτι, εἴπερ ἡ ψυχὴ ἀθάνατος, ἐπιμελείας δὴ δεῖται οὐχ ὑπὲρ τοῦ χρόνου τούτου μόνου, ἐν ᾧ καλοῦμεν τὸ ζῆν, ἀλλ' ὑπὲρ τοῦ παντός. καὶ ὁ κίνδυνος νῦν δὴ καὶ δόξειεν ἂν δεινὸς εἶναι, εἴ τις αὐτῆς ἀμελήσει. εἰ μὲν γὰρ ἦν ὁ θάνατος τοῦ παντὸς ἀπαλλαγή, ἕρμαιον ἂν ἦν τοῖς κακοῖς ἀποθανοῦσι τοῦ τε σώματος ἅμα ἀπηλλάχθαι καὶ τῆς αὑτῶν κακίας μετὰ τῆς ψυχῆς· νῦν δέ, ἐπειδὴ ἀθάνατος φαίνεται οὖσα, οὐδεμία ἂν εἴη αὐτῇ ἄλλη ἀποφυγὴ κακῶν οὐδὲ σωτηρία πλὴν τοῦ ὡς βελτίστην τε καὶ φρονιμωτάτην γενέσθαι. οὐδὲν γὰρ ἄλλο ἔχουσα εἰς Ἅιδου ἡ ψυχὴ ἔρχεται πλὴν τῆς παιδείας τε καὶ τροφῆς, ἃ δὴ καὶ μέγιστα λέγεται ὠφελεῖν ἢ βλάπτειν τὸν τελευτήσαντα εὐθὺς ἐν ἀρχῇ τῆς ἐκεῖσε πορείας. λέγεται δὲ οὕτως, ὡς ἄρα τὴν μὲν ἀκάθαρτον καί τι πεποιηκυῖαν τοιοῦτον, ἢ φόνων ἀδίκων ἡμμένην, ἢ ἄλλ' ἄττα τοιαῦτα εἰργασμένην, ἃ τούτων ἀδελφά τε καὶ ἀδελφῶν ψυχῶν ἔργα τυγχάνει ὄντα, ταύτην μὲν ἅπας φεύγει τε καὶ ὑπεκτρέπεται καὶ οὔτε ξυνέμπορος οὔτε ἡγεμὼν ἐθέλει γίγνεσθαι, αὐτὴ δὲ πλανᾶται ἐν πάσῃ ἐχομένη ἀπορίᾳ, ἕως ἂν δή τινες χρόνοι γένωνται, ὧν ἐξελθόντων ὑπ' ἀνάγκης φέρεται εἰς τὴν αὐτῇ πρέπουσαν οἴκησιν· ἡ δὲ καθαρῶς τε καὶ μετρίως τὸν βίον διεξελθοῦσα, καὶ ξυνεμπόρων καὶ ἡγεμόνων θεῶν τυχοῦσα, ᾤκησε τὸν αὐτῇ ἑκάστῃ τόπον προσήκοντα.

2. Subjoin any remarks which this passage may naturally suggest.

*28th September*, 1853, 9 *o'clock, a.m.*

Translate :— LATIN—*Examiner, Mr. Lewis.*

### (A.) PLAUTUS—PŒNULUS.

AGORASTOCLES.

Ita me di ament, tardo amico nihil est quidquam iniquius,
Præsertim homini amanti, qui quidquid agit, properat omnia:
Sicut ego hos duco advocatos, homines spissigradissumos,
Tardiores quam corbitæ sunt in tranquillo mari.
Atque equidem hercle dedita opera amicos fugitavi senes:
Scibam ætate tardiores: metui meo amori moram.
Nequidquam hos procos mi elegi loripedes, tardissumos.
Quin si ituri hodie estis, ite aut ite hinc in malam crucem!
Siccine oportet ire amicos homini amanti operam datum?
Nam iste quidem gradus subcretust cribro pollinario,
Nisi cum pedicis condidicistis istoc grassari gradu.

ADVOCATIVI.

Heus tu, quamquam nos videmur tibi plebsii et pauperes,
Si nec recte dicis nobis, dives de summo loco:
Divitem audacter solemus mactare infortunio;
Nec tibi nos obnoxii istuc, quod tu ames aut oderis.
Quom pro capite argentum dedimus, nostrum dedimus, non tuom:
Liberos nos esse oportet. Nos te nihili pendimus;
Ne tu nos amori servos tuo esse addictos censeas.

### (B.) PERSIUS.—SATIRE V.

Mane piger stertis: Surge, inquit avaritia: eia
Surge. Negas: instat: Surge, inquit. "Non queo." Surge.
"Et quid agam?" Rogitas? saperdas advehe Ponto,
Castoreum, stuppas, ebenum, thus, lubrica Coa.
Tolle recens primus piper e sitiente camelo.
Verte aliquid: jura. "Sed Jupiter audiet." Eheu!
Baro, regustatum digito terebrare salinum
Contentus perages, si vivere cum Jove tendis.
Jam pueris pellem succinctus et œnophorum aptas:
Ocyus ad navem: nihil obstat, quin trabe vastâ
Ægeum rapias, nisi sollers luxuria ante
Seductum moneat: Quo deinde, insane, ruis? quo?
Quid tibi vis? calido sub pectore mascula bilis
Intumuit, quam non exstinxerit urna cicutæ?
Tun' mare transilias? tibi, tortâ cannabe fulto,
Cœna sit in transtro? Veientanumque rubellum
Exhalet vapido læsum pice fissilis obba?
Quid petis? ut nummi, quos hîc quincunce modesto
Nutrieras, pergant avidos sudare deunces?
Indulge genio; carpamus dulcia: nostrum est,
Quod vivis: cinis et manes et fabula fies.
Vive memor leti: fugit hora: hoc, quod loquor, inde est.

### (C.) CICERO.—LETTERS TO ATTICUS, BOOK XIV.

CICERO ATTICO SAL.

Duas a te accepi epistolas heri. Ex priore theatrum Publiumque cognovi; bona signa consentientis multitudinis, plausus vero L. Cassio datus, etiam facetus mihi quidem visus est. Altera epistola de Madaro scripta, apud quem nullum φαλάκρωμα: ut putas. processi enim, sed minus. diutius sermone enim sum retentus. Quod autem ad te scripseram, obscure fortasse, id ejusmodi est; aiebat Cæsarem secum, quo tempore Sestii rogatu veni ad eum, cum expectarem sedens dixisse: *Ego nunc tam sim stultus, ut hunc ipsum facilem hominem putem mihi esse amicum, cum tamdiu sedens meum commodum expectet?* Habes igitur φαλάκρωμα inimicissimum otii, idest, Bruti. In Tusculanum hodie; Lanuvii cras; inde Asturæ cogitabam. Piliæ paratum est hospitium: sed vellem Atticam; (verum tibi ignosco) quarum utrique salutem.

### (D.) PLINIUS JUNIOR.—PANEGYRICUS.

Onera imperii, pleraque vectigalia institui, ut pro utilitate communi, ita singulorum injuriis, coëgerunt. His vicesima reperta est, tributum tolerabile, et facile hæredibus, duntaxat extraneis, domesticis grave. Itaque illis irrogatum est, his remissum, videlicet quod manifestum erat, quanto cum dolore laturi, seu potius non laturi, homines essent, destringi aliquid et abradi bonis, quæ sanguine, gentilitate, sacrorum denique societate, meruissent, quæque numquam ut aliena, et speranda, sed ut sua, semperque possessa, ac deinceps proximo cuique transmittenda, cepissent. Hæc mansuetudo legis veteribus civibus servabatur; novi, seu per Latium in civitatem, seu beneficio principis, venissent, nisi simul cognationis jura impetrassent, alienissimi habebantur quibus conjunctissimi fuerant. Ita maximum beneficium vertebatur in gravissimam injuriam, civitasque Romana instar erat

odii, et discordiæ, et orbitatis; cum carissima pignora, salva ipsorum pietate, distraheret. Inveniebantur tamen, quibus tantus amor nominis nostri inesset, ut Romanam civitatem, non vicesimæ modo, verum etiam affinitatum damno bene compensari putarent. Sed his maxime debebat gratuita contingere, a quibus tam magno æstimabatur.

1. What were the most important changes which the Latin language underwent in the interval between Plautus and Juvenal?
2. Give an account of the Leges Sumtuariæ. Mention facts which prove that they failed to accomplish their object.
3. Write a short essay on slavery amongst the Romans, and support your statements by quotations from ancient authors.
4. Explain the Bacchiac and Cretic metres. What is meant by the word canticum?
5. Describe accurately the course of the Via Appia, Via Latina, and Via Flaminia.

*28th September*, 1853, 2 *o'clock, p.m.*

## LATIN—*Examiner. Mr. Lewis.*

Translate into English:

### VIRGIL.—GEORGICS, BOOK II.

His animadversis, terram multo ante memento
Excoquere et magnos scrobibus concidere montes,
Ante supinatas Aquiloni ostendere glebas,
Quam lætum infodias vitis genus. Optima putri
Arva solo: id venti curant gelidæque pruinæ,
Et labefacta movens robustus jugera fossor.
At, si quos haud ulla viros vigilantia fugit,
Ante locum similem exquirunt, ubi prima paretur
Arboribus seges et quo mox digesta feratur,
Mutatam ignorent subito ne semina matrem.
Quin etiam cœli regionem in cortice signant,
Ut, quo quæque modo steterit, qua parte calores
Austrinos tulerit, quæ terga obverterit axi,
Restituant: adeo in teneris consuescere multum est.
Collibus an plano melius sit ponere vitem,
Quære prius. Si pinguis agros metabere campi,
Densa sere: in denso non segnior ubere Bacchus;
Sin tumulis acclive solum collesque supinos,
Indulge ordinibus; nec secius omnis, in unguem
Arboribus positis, secto via limite quadret.
Ut sæpe ingenti bello quum longa cohortes
Explicuit legio, et campo stetit agmen aperto,
Directæque acies, ac late fluctuat omnis
Aere renidenti tellus, necdum horrida miscent
Prœlia, sed dubius mediis Mars errat in armis:
Omnia sint paribus numeris dimensa viarum,
Non animum modo uti pascat prospectus inanem,
Sed quia non aliter vires dabit omnibus æquas
Terra, neque in vacuum poterunt se extendere rami.
Forsitan et scrobibus quæ sint fastigia, quæras.
Ausim vel tenui vitem committere sulco;
Altior ac penitus terræ defigitur arbos,
Aesculus in primis, quæ quantum vertice ad auras
Aetherias, tantum radice in Tartara tendit.
Ergo non hiemes illam, non flabra neque imbres
Convellunt; immota manet, multosque nepotes,
Multa virûm volvens durando sæcula vincit;
Tum fortes late ramos et brachia tendens
Huc illuc, media ipsa ingentem sustinet umbram.

Translate into Latin prose:

The continental kingdoms, which had risen on the ruins of the Western Empire, kept up some intercourse with those eastern provinces where the ancient civilization, though slowly fading away under the influence of misgovernment, might still astonish and instruct barbarians, where the court still exhibited the splendour of Diocletian and Constantine, where the public buildings were still adorned with the sculptures of Polycletus and the paintings of Apelles, and where laborious pedants, themselves destitute of taste, sense, and spirit, could still read and interpret the master-pieces of Sophocles, of Demosthenes, and of Plato. From this communion Britain was cut off. Her shores were, to the polished race which dwelt by the Bosphorus, objects of a mysterious horror, such as that with which the Ionians of the age of Homer had regarded the Straits of Scylla and the city of the Læstrygonian cannibals.

Re-translate into Latin prose:

Not without good reason did gods and men select this place for founding a city; these most healthful hills; a commodious river, by means of which the produce of the soil may be conveyed from the inland countries, by which maritime supplies may be obtained; close enough to the sea for all purposes of convenience, and not exposed by too much proximity to the dangers of foreign fleets; a situation in the centre of the regions of Italy singularly adapted by nature for the increase of a city. The very size of so new a city is a proof. Romans, the present year is the three hundred and sixty-fifth year of the city: for so long a time are you waging war amid nations of such long standing; yet not to mention single cities, neither the Volscians combined with the Æquans, so many and such strong towns, nor all Etruria, so potent by land and sea, occupying the breadth of Italy between the two seas, can cope with you in war.

*30th September*, 1853, 9 *o'clock, a.m.*

### FRENCH—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

#### I.

1. What was the language spoken by the inhabitants of Gaul at the time of the introduction of Christianity, viz., in the second century?
2. Give proofs of this.
3. What changes had this language undergone in the ninth century? What is the proper denomination of it? And what is generally considered the most ancient monument of it?
4. What is the origin of the French article definite?—indefinite?—partitive? What difference is there between the use of the articles in old and in modern French?
5. The article is sometimes used in French and not in English, and *vice versa;* state the rules in accordance with which this takes place.
6. What is the origin of the use of the two auxiliary verbs?
7. To what do you trace the form of the French future?
8. Explain the manner in which the third and fourth conjugations, viz., those in *oir* and *re* were derived from the Latin.

#### II.—SEVENTEENTH CENTURY.

The second portion of this century is called by Voltaire and many others "*le siècle de Louis quatorze;*" show in what respect the statement of the influence of this king on literature is exaggerated and unjust towards his predecessors; mention the authors of that age, the period about which they wrote their best works, the origin of the French Academy, and the date and influence of the *Hôtel Rambouillet.*

#### III.

Translate into French:

1. The Swedes live a long time when they do not weaken themselves by the immoderate use of strong liquors and wines, which the northern nations seem to like so much the more, as nature has refused them to them.
2. There are not more than nine millions of our livres in specie (*coined money*) in the whole country. The public bank, which is the oldest in Europe, was introduced there from necessity, because the payments being made in copper and iron coin, the carriage of it was too difficult.
3. Disguised as a peasant.

VOLTAIRE—*Charles XII.*

#### IV.

Une grenouille vit un bœuf
Qui lui sembla de belle taille.
Elle, qui n'était pas grosse en tout comme un œuf,
Envieuse, s'étend, et s'enfle, et se travaille,
Pour égaler l' animal en grosseur;
Disant: Regardez bien, ma sœur,
Est-ce assez? dites-moi; n'y suis-je point encore?—
Nenni.—M'y voici donc?—Point du tout.—M'y voila?—
Vous n'en approchez point. La chétive pécore
S'enfla si bien qu' elle creva.
Le monde est plein de gens qui ne sont pas plus sages:
Tout bourgeois veut bâtir comme les grands seigneurs;
Tout petit prince a des ambassadeurs;
Tout marquis veut avoir des pages.

LA FONTAINE—*Fables.*

*30th September*, 1853, 9 *o'clock, a.m.*

### GERMAN—*Examiner, I. G. Abeltshauser, LL.D.. M.R.I.A.*

#### I.

1. What European languages compose the Teutonic family?
2. By what link are they connected with the Semitic and Greco-Latin languages, according to Bopp and Grimm?
3. What is the general name given by modern philologists to this whole group of languages?
4. What are the great divisions of the Teutonic, ancient and modern?
5. What class of English words are derived from the Teutonic?

6. What are the principal changes of letters which the English has undergone with respect to the German, and what is the general limit of those changes?

7. What trace of German cases is to be found in English?

### GÖTHE.

1. The principal circumstances of his life?
2. His chief works?
3. What rhythm did he use in his poetry?
4. What philosophical and literary influences acted most on him at different periods of his life?
5. When did he write Faust?

### II.

1. What is the difference between separable and inseparable particles?
2. What difference is there in their pronunciation?
3. What is the sign of the past participle?
4. When is it omitted?
5. What is the position of the preposition *zu*, before the infinitives of verbs compounded with separable and inseparable particles respectively? Give examples.
6. Explain the force of the particles *ver*, *zer*, *be*, *ent*, *er*. Give their Latin or English equivalents and examples.
7. When are adjectives declined, and when not? Give examples.
8. Explain the causes of this difference.
9. What is the form of the German adverb?

### III.

Translate into German:

In the capital all constraint is banished as much as possible. Compliments are, at bottom, just as irksome to him who pays them as to him who receives them. People are allowed to eat what they have a mind, and as much as they like; there is no pressing. Titles are only used in office; in social life they would only discourage enjoyment. In short, a good host seeks to banish every thing which can disturb ths comfort of his guests. People come, sit down, stand, just as they please. They depart without taking leave.—*Kotzebue, die deutschen Kleinstädter.*

### IV.

Du biſt vielleicht, mein lieber Leſer, ſchon irgendwo, nach mannichfachem Auf—und Abtreiben in der Welt, an einen Ort gekommen, wo Dir es wohl war; die Jedwedem eingeborene Liebe zu eignem Heerd und ſtillen Frieden ging wieder auf in Dir; Du, meinteſt, die Heimath blühe mit allen Blumen der Kindheit und der allerreinſten, innigſten Liebe, wieder aus theuren Grabſtätten hervor, und hier müſſe gut wohnen und Hütten bauen ſeyn. Ob Du Dich darin geirrt, und den Irrthum nachher ſchmerzlich abgebüßt haſt, das ſoll hier nichts zur Sache thun, und Du wirſt Dich auch ſelbſt wohl mit dem herben Nachſchmack nicht freiwillig betrüben wollen. Aber rufe jene unausſprechliche ſüße Ahnung, jenen engliſchen Gruß des Friedens wieder in Dir herauf, und Du wirſt ungefähr wiſſen können, wie dem Ritter Huldbrand während ſeines Lebens auf der Seeſpitze zu Sinne war.

*La Motte Fouqué. Undine.*

*29th September*, 1853, 9 *o'clock, a.m.*

## COURSE I.—PROSE COMPOSITION IN ENGLISH:—*Examiner, George L. Craik, A.M.*

SUBJECT FOR ESSAY:—

The Study of the Greek and Latin Languages, as a discipline and training for the modern European mind, compared, first, with the study of any living foreign language, whether of the Latin or Gothic stock; secondly, with that of any other languages, living or dead.

*29th September*, 1853, 9 *o'clock, a.m.*

## ENGLISH PHILOLOGY AND CRITICISM:—*Examiner, George L. Craik, A.M.*

1. State Grimm's Canon, or Law, of Letter-change, in so far as it respects the relation between the Greek and Latin tongues and those of the Low-Germanic branch; and illustrate it by examples.
2. State the objections that there are to the common spelling or received meanings of the following words:—*Could, Island, Bridegroom, Shamefaced, Livelihood, Posthumous, Miniature, Causeway.*
3. State the changes of signification which the following words have undergone since the language has assumed its present form:—*Sad, Tall, Let, Owe, Prevent, Pretend, Apprehend, Censure, Convince, Resent, Conceit, Companion, Defend, Intend, For, Curst, Dear, To Fear, Because, Whereas, Lover, Graceful, Imperious, Quick, Kindly, Willing, Temperance, Temperament, Dutch, Ingenuity, Disagreeable.*
4. Discuss the question of a general Orthographical Reform of the English language, in reference both to its desirableness and to its practicability.
5. Give an account of the sources that exist for the text of Shakespeare's Plays; and enumerate his principal editors and commentators, with such remarks as your acquaintance with them may suggest.

*29th September*, 1853, 2 *o'clock, p.m.*

## COURSE II.—ENGLISH PHILOLOGY AND CRITICISM:—*Examiner, George L. Craik, A.M.*

1. Explain, with precision, and illustrate the distinctive functions in language of the Substantive, the Adjective, and the Verb.

2. Explain what is meant by the distinction between *Weak* and *Strong* Nouns in the Gothic languages, and how it is connected with what is called the *n* Declension, and with the Definite and Indefinite senses of the Adjective.

3. Explain what are meant by *Strong* and *Weak* Verbs, and state the considerations, or some of them, from which it has been inferred that the distinction is a natural one in our language.

4. State what appears to be the true doctrine with regard to the origin and nature of such English forms as *Rising*, used in such expressions as "Rising early is healthy."

5. Compare, or contrast, the Versification of Pope with that of Dryden, and the Versification of Pope and Dryden with that of Shakespeare and Milton.

*30th September*, 1853, 9 *o'clock, a.m.*

### LOGIC—*Examiner, Rev. W. Fitzgerald, D.D.*

1. What is the true function of the axioms and definitions, respectively, in mathematical reasoning?

2. What forms of mathematical reasoning does Reid deny to be reducible to syllogism, and wherein lies his mistake?

3. Explain and criticise Mr. Mill's reduction of syllogism to inductive reasoning.

4. For what reason does Mill think that the deductive method should be principally applied to astronomy, physiology, mental philosophy, and social science?

5. Why must the law of a complex effect be less general than the laws of the causes which conspire to produce it?

6. What is meant by "the Colligation of Facts," and in what does it differ from a true induction? State and remark upon the views of Mill and Whewell.

*30th September*, 1853, 2 *o'clock, p.m.*

### METAPHYSICS—*Examiner, Rev. W. Fitzgerald, D.D.*

1. What was, probably, the origin of the Platonic theory of reminiscence.

2. Whence arise the associations in our minds between colour and extension, and between space and time?

3. Is an habitual attention to fictitious tales of distress, heroism, &c., a good discipline of moral improvement? State the advantages and disadvantages of novel-reading, and explain them on philosophical principles.

4. What is the reason that nonsense so often escapes detection, both by the writer and the reader?

5. Whence, according to D. Stewart, are we led, when we see two events conjoined, to attribute *efficiency* to the former of them?

6. Upon what is the difficulty founded, which metaphysicians have felt in endeavouring to explain how we see objects erect by means of inverted images?

*1st October*, 1853, 9 *o'clock, a.m.*

### JURISPRUDENCE—*Examiner, Professor Heron.*

A. 1. Mention the principal writers on politics and laws amongst the Greeks and Romans. Give their dates, and the names of their works.

2. Between what years were the compilations of the Roman laws executed under the orders of Justinian? Who were the principal commissioners engaged? What was the *corpus juris civilis?*

3. What circumstances originated international law in modern Europe? Trace the origin of the word *international.*

4. "*Ignorantia juris neminem excusat.*" Give the reasons for this maxim.

B. 1. Define utility.

2. When may an action be said to be conformable to the principle of utility?

3. Why is the principle of utility not susceptible of any direct proof?

4. What is the derivation and meaning of the term *sanction?*

5. There are four distinct sanctions or sources of pleasure and pain. Enumerate them.

6. Bentham states that there are four articles to be considered in every transaction which is to be examined, with a view to punishment.

7. Define evidence and proof.

8. Define circumstantial evidence, and secondary evidence.

C. 1. According to Savigny, what produces the positive law?

2. To what does Savigny compare the formation and development of law?

3. Savigny proves that over the whole globe, wherever men live together, they exist—and, so far as history gives us information, have existed—in intellectual communities.

4. To make law operative, a twofold activity of the state is required.

5. Savigny divides law into two domains. What is the object of each?

6. What are juridical relations?

7. Trace, historically, the development of the private law of a people. What portions of the law does the Statute Law first embrace, and what function does it finally discharge in the progress of a nation?

8. How does Savigny define custom?

1st *October*, 1853, 9 *o'clock, a.m.*

### POLITICAL ECONOMY—BANKING AND CURRENCY—*Examiner, Professor Heron.*

1. What are the objections to a double standard of value?
2. Mr. J. Stuart Mill enumerates four forms in which credit is employed as a substitute for money.
3. Money is imported into a country in two different ways.
4. Define a pound sterling.
5. What are the principal modes in which general and extensive fluctuations in prices may occur in a country using a metallic currency?
6. What was the annual production of gold at the beginning of the present century? What was the annual produce of Siberia and the Ural mountains for four years prior to 1850? What has been the total annual produce since the discoveries of the mines of California and Australia to the present time?
7. If, in consequence of the discovery of the gold mines in California and Australia, the value of gold be diminished, what will be the first probable result on the metallic currency of England?
8. There is a simple proof derived from the present state of the gold and silver currency of England, that the value of gold has not yet been sensibly affected by the recent discovery.
9. What is a decimal currency? What countries now possess a decimal currency? State the denominations of their coins, and their value in English money.
10. In the conversion of the currency of England into a decimal currency, what coins do you consider should be retained, what coins should be withdrawn from circulation, and what new coins should be issued?
11. Should the issue of bank notes be confined to a single establishment? If so, state the reasons. If not, why not?
12. How is the circulation of the Bank of England now regulated by law?
13. Define a bill of exchange. When were bills of exchange first extensively used? Are there any traces of them in the classic authors?
14. When is the exchange between two countries at its real par? Whence do the terms favourable and unfavourable, as applied to the exchange between two countries, derive their application? To what classes of persons alone, in the respective countries, are the exchanges favourable or unfavourable?
15. On the news of Napoleon's landing from Elba the price of foreign bills advanced in one day 10 per cent. upon the Stock Exchange in London. The price of bullion rose likewise with the same suddenness. State the reasons for this. Under the present system of the Bank of England would so great a rise in the price of bills be possible?

1st *October*, 1853, 2 *o'clock, p.m.*

### POLITICAL ECONOMY—*Examiner, Professor Heron.*

1. What was the mercantile system? Show its errors.
2. Whether does the free importation of foreign productions increase or diminish the general demand for labour in a country? Prove the proposition which you adopt.
3. Mr. M'Culloch says:—"Had he [Locke] carried his analysis a little further, he could hardly have failed to perceive that water, leaves, skins, and other spontaneous productions of nature, have no value except what they owe to the labour required for their appropriation. The value of water to a man on the bank of a river depends on the labour necessary to raise it to his lips; and its value, when carried ten or twenty miles off, is equally dependent on the labour necessary to convey it there." (*Introductory Discourse to Wealth of Nations*, p. 31.) Is this proposition true? If so, how is it to be proved? If not true, how is it to be disproved?
4. In what year was the "Wealth of Nations" published? State briefly the object and plan of the work.
5. Upon what does the value of money depend—
   (*a.*) When the power to supply it is not restricted?
   (*b.*) When the power to supply it is restricted?
6. By what means may the value of paper money be kept on a par with gold? What effect has the over issue of convertible notes upon the exportation or importation of gold?
7. What are the grounds of the principle of equality of taxation?
8. Should the same percentage be levied upon all amounts of incomes? If not, why not?
9. Should the same percentage be levied upon perpetual and terminable incomes? If not, why not?
10. Mr. J. S. Mill says, that the principle of equality of taxation "requires that a person who has no means of providing for old age, or for those in whom he is interested, except by saving from income, should have the tax remitted on all that part of his income which is really and bona fide applied to that purpose." (*Political Economy*, vol. 2, p. 376.) Is this proposition correct? If so, how is it to be proved? If not correct, how is it to be disproved?
11. The Income Tax Act, 16 & 17 Vict., cap. 34, 1853, is entitled "An Act for granting to Her Majesty duties on profits arising from property, professions, trades, and offices."

State, according to their scientific nomenclature, the different species of income taxed by this Act. What other Act of last session imposed a tax upon another species of income?

12. Sketch the history of the Income Tax in England, from its first enactment to the present time.

13. There is a remarkable difference between the methods of levying general and local taxation in the United Kingdom and on the Continent. Which do you prefer in each case? State your reasons.

14. Whether would the abolition of the impressment of seamen raise or lower the rate of wages in the merchant service? State your reasons for the proposition which you adopt.

*27th September*, 1853, 9 *o'clock, a.m.*

ASTRONOMY—*Examiner, George F. Shaw, F.T.C.D.*

NOTE.—The numbers in parentheses at the right hand side of the page, represent the value which will be attached to the answers of the questions opposite them.

1. Show that the radial and tangential components of the sun's disturbing force on the moon are respectively—

$$-\tfrac{1}{2} m^2 f \frac{a'^3 r}{r'^3 a} \left\{ 1 + 3 \cos.\ 2\ \omega ; \right\} \qquad \text{(One.)}$$

$$\text{and } \tfrac{3}{2} m^2 f \frac{a'^3 r}{r'^3 a} \sin.\ 2\ \omega ; \qquad \text{(One.)}$$

and show that this force is a quantity of the same order as $m^2$, $m$ being the ratio of the sun's mean motion to that of the moon. (One.)

2. Show by Newton's method that the above force produces the following effects—

(*a*) It increases the length of the month, and, at the present epoch, makes the winter months longer than those of summer. (One.)

(*b*) It increases the moon's velocity (supposing her orbit circular) in the ratio—

$$\left[ 1 + \frac{3\ m^2}{2\ (1-m)} \cos.\ 2\ (1-m)\ \theta \right]^{\frac{1}{2}} : 1. \qquad \text{(One.)}$$

(*c*) It changes the orbit from a circle into a curve, whose equation is of the form—

$$r = a\ (1 - x \cos.\ 2\ \omega), \qquad \text{(Two.)}$$

(where $x$ is a function of $m$), and having its axes in the ratio 70 : 69. (Two.)

(*d*) By both these changes, conjointly, it produces a resulting velocity =

$$\text{mean vel. in circular orbit} \times \left[ 1 + (2\ x + \frac{3\ m^2}{2\ (1-m)}) \cos.\ 2\ (1-m)\ \theta \right]^{\frac{1}{2}}, \qquad \text{(One.)}$$

and a consequent error in longitude (the variation) of which the periodic term is sine twice moon's angle from sun. (One.)

(*e*) It causes the nodes to regress pretty steadily, and the inclination to fluctuate in such a manner that the fluctuations counteract each other in one revolution of the nodes. (Two.)

3. Show by Newton's method, that the motion of the nodes and the inclination of the orbit (considered circular), are expressed respectively by the equations—

$$\frac{d\,\mathrm{N}}{d\,\theta} = -3\ m^2 \cos.\ (1-m)\ \theta \sin.\ (\theta - \mathrm{N}) \sin.\ (m\ \theta - \mathrm{N}) ; \qquad \text{(Two.)}$$

$$\frac{d\,\mathrm{I}}{d\,\theta} = -3\ m^2 \sin.\ \mathrm{I} \cos.\ (1-m)\ \theta \cos.\ (\theta - \mathrm{N}) \sin.\ (m\ \theta - \mathrm{N}) ; \qquad \text{(Two.)}$$

4. The equations of motion of a disturbed planet may be written in the form—

$$\frac{d^2 x}{d\,t^2} + \frac{(M+m)\,x}{r^3} + \frac{d\,R}{d\,x} = 0 ;\ \frac{d^2 y}{d\,t^2} + \&\text{c.} = 0 ;\ \frac{d^2 z}{d\,t^2} + \&\text{c.} = 0 ;$$

where $R$ is a function of $x, y, z$, satisfying Laplace's equation—

$$\frac{d^2 R}{d\,x^2} + \frac{d^2 R}{d\,y^2} + \frac{d^2 R}{d\,z^2} = 0. \qquad \text{(Two.)}$$

5. State the principal steps of the process by which the polar equation of the moon's motion in longitude, to wit—

$$\frac{d^2 u}{d\,\theta^2} + u - \frac{\dfrac{\mathrm{P}}{u^2} - \dfrac{\mathrm{T}}{u^3} \dfrac{d\,u}{d\,\theta}}{h^2 + 2 \displaystyle\int \frac{\mathrm{T}\,d\,\theta}{u^3}} = 0$$

is reduced to the form—

$$\frac{d^2 u}{d\,\theta^2} + u - b\,(1 - \tfrac{3}{4} k^2 - \tfrac{1}{2} m^2) - \tfrac{5}{2}\,b\,m^2 e \cos.\ (\theta - a)$$

$$-\tfrac{3}{4}\,b\,k^2 \cos.\ 2\,(\theta - \gamma) + 3\,b\,m^2 \cos.\ \left\{ (2 - 2\ m)\ \theta - 2\ \beta \right\}$$

$$-\tfrac{15}{2}\ b\ m^2\ e \cos.\ \left\{ (1 - 2\,m)\,\theta - 2\,\beta + a \right\} + \tfrac{3}{2}\,b\,m^2\,e' \cos.\ (m\,\theta + \beta - a') = 0$$

explaining particularly, first, why it is necessary to preserve terms of the third order of magnitude in the latter equation, when we only require our solution to be an approximation within the second order; and second, how is the difficulty that arises from the existence of the term cos. $(\theta - a)$ to be removed. (Five.)

6. The form to which this differential equation is finally reduced for integration is—

$$\frac{d^2 u}{d\,\theta^2} + c^2\,(u - b) + \tfrac{1}{4}\,b\,(8\ k^2 + 2\ m^2) - \tfrac{3}{4}\,b\,k^2 \cos.\ 2\,(g\,\theta - \gamma) + \&\text{c.}$$

Explain the appearance of the co-efficient $g$, and state the method by which the equation is integrated. (Two.)

7. What are the principal steps of the process, by which the longitude of the moon is expressed in terms of the time? (Two.)

8. What is the geometric interpretation of the first two terms of the value of $\frac{1}{r}$, namely—

$$b\left\{1 + e \cos.(c\,\theta - a)\right\}$$ (One.)

and of the term in the longitude called the *Evection*. (One.)

9. (*a*) Show that when a star passes from one given zenith distance, $z$, to another, $z'$, in the shortest possible time, its declination satisfies the equation—

$$\text{sin. decl.} = \text{sin. latitude} \times \frac{\cos.\ \frac{1}{2}(z+z')}{\cos.\ \frac{1}{2}(z-z')}.$$ (Two.)

(*b*) And hence derive a solution to the question, at what epochs of the year is twilight shortest in a given latitude? (One.)

10. It was lately urged, as an objection to the spheroidal figure of the earth, that Holyhead is, in clear weather, visible at Howth. Allowing 1,100 feet for the height of the Head, and 60 miles for its distance from Howth, show that the atmospheric refraction is sufficient to bring the object within view. (One.)

11. The discovery of the planet Neptune has invalidated one supposed law of the solar system. (One.)

12. (*a*) Show that by assigning a right proportion to the radii of the epicycle and the deferent in the Ptolemaic system, the planetary motions can be as accurately predicted by means of this system as by the circles of Copernicus. (One.)

(*b*) Did Copernicus reject altogether the use of epicycles? (One.)

13. Describe the mode in which the heights of lunar mountains are measured. (One.)

14. Explain the manner in which, from the tables of the sun and moon's longitudes, the moon's latitude, parallax, mean motion, &c., we predict the beginning, ending, and magnitude, of a solar eclipse. (Two.)

15. The beginning of a solar eclipse having been observed in two places, the longitude of one of which is given, show that the longitude of the other can be inferred. (Three.)

Total value of answers to the above questions—Forty-three.

*27th September*, 1853, 2 *o'clock, p.m.*

## NATURAL PHILOSOPHY—*Examiner, G. F. Shaw, F.T.C.D.*

1. Define the terms—*quantity of heat, temperature, capacity for heat, relative heat, specific heat.*

2. Some of these terms become ambiguous in the case of gases.

3. The co-efficient of expansion of any one metal being known, that of any other can be ascertained by juxta-position of two rods of the given metals.

4. Explain the method by which the dilatation of mercury or other liquids may be measured, independently of the expansion of the vessel which contains it.

5. Let the heights observed in this process be 30 and 30·467, corresponding, respectively, to the temperatures zero and 74° F.; what is the liquid's co-efficient of expansion?

6. By two different modifications of a single form of apparatus, M. Regnault determines the co-efficient of expansion of a gas; 1st, directly, by measuring its dilatation under a constant pressure; 2nd, by inferring this dilatation from the change in its elastic force under a nearly constant volume.

7. Let D be the density of a gas, at the temperature $t$, and pressure $h$, referred to a standard gas at temp. T and pressure H; show that D′, the density of the first gas, at $t'$ and $h'$, referred to the standard at T′ and H′, is—

$$D\frac{H}{H'}\,\frac{h'}{h}\,\frac{(1+\alpha\,t)}{(1+\alpha\,t')}\,\frac{(1+\alpha'\,T')}{(1+\alpha'\,T)}.$$

8. By what process did Cavendish estimate the mean density of the earth? Particularize the data to be collected from the balance of torsion.

9. Explain the curves formed by iron filings when spread over a non-conducting surface, beneath which the poles of a magnet are placed.

10. Explain the production of currents by the magneto-electric machine.

11. Mention some other apparatus illustrative of the mutual action of currents and magnets.

12. Define the terms—*centre of gravity*, of *pressure*, of *parallel forces*, of *oscillation*, of *percussion*, and *metacentre*.

13. What is the definition of the *dispersive power* of a refracting substance? and what is its measure?

14. Show that every spherical refracting surface has two principal foci.

15. How are physical phenomena to be distinguished from chemical in cases where they approximate in character?

16. Give instances from the history of science in which an addition to the *doctrines* of a science became an addition to its *method*.

*1st October*, 1853, 9 *o'clock, a.m.*

### MATHEMATICS—*Examiner, John Mulcahy, LL.D.*

1. Find the expression for the number of balls in a square pyramid, $n$ being the number in each side of the base.

2. Prove that the number of odd combinations of $n$ things, exceeds the number of even by one, and that the entire number of both $= 2^n - 1$.

3. Show that the solution of a recurring equation of an even degree, depends on that of an equation whose degree is one half that of the former equation.

4. Deduce, by the differential calculus, the rule for finding the equal roots of an equation, and apply the rule to the equation $x^4 - 14x^3 + 61x^2 - 84x + 36 = 0$.

5. Given the probability that an event will occur at a single trial, show how to find by means of a table of logarithms, the number of trials in which there will be a given probability that the event will happen once at least.

6. A vessel contains $m$ white and $n$ black balls; a second vessel contains $m'$ white and $n'$ black; and so on for any given number of vessels. Find the probability of drawing a white ball from one of the whole system of vessels taken at random.

7. Find the expression for the area of a spherical triangle in terms of the angles.

8. Express the cosine of a side of a spherical triangle in terms of the angles.

9. Given two sides, and the included angle in a spherical triangle, find the expression for tan. $\frac{1}{2}$ sum of the remaining angles.

10. Assuming Taylor's theorem, deduce the rule for finding the values of $x$, which render $f(x)$ a maximum or minimum.

11. Integrate $\frac{dx}{\sin. x \cos. x}$, $\frac{dx}{\sin. x}$, and $\frac{dx}{\cos. x}$.

12. Integrate $dx\sqrt{a^2 - x^2}$.

13. Integrate the equation $\frac{d^2y}{dx^2} - a^2y = 0$.

14. Integrate the simultaneous equations—

$$\frac{d^2x}{dt^2} - ay - bx = c, \text{ and } \frac{d^2y}{dt^2} - a'y - b'x = c'.$$

15. Integrate the equation $q^2r - 2pqs + p^2t = 0$, and show that it belongs to the class of surfaces generated by a right line, which moves constantly parallel to a given plane.

16. Supposing an event, of whose antecedent probability nothing is known, to have been observed to occur $m$ times, and to fail $n$ times in $m + n$ trials, show that, relatively to these *data*, the probability of its occurring again on a new trial $= \frac{\int_0^1 x^{m+1}\,dx\,(1-x)^n}{\int_0^1 x^m\,dx\,(1-x)^n}$.

17. Assuming this expression, show that the probability in question $= \frac{m+1}{m+n+2}$.

*1st October*, 1853, 2 *o'clock, p.m.*

### MATHEMATICS—*Examiner, John Mulcahy, LL.D.*

1. Given the equation of a conic referred to rectangular axes of co-ordinates drawn from the centre as origin, find by transformation of co-ordinates the position of the axes of the curve.

2. Find the polar equation of an ellipse referred to the focus as pole, and show how the same equation will also represent the hyperbola and parabola.

3. Find the expression for the number of points required to determine a curve of the $n^{th}$ degree.

4. From a given point $o$ on a curve of the third degree let a right line be drawn, cutting the curve in two other points; prove that the locus of the harmonic conjugate of $o$, with respect to these points, is a conic touching the given curve at $o$.

5. Prove that from any point on a curve of the third degree, four tangents (distinct from the tangent at the point) can, in general, be drawn to the curve, and that the anharmonic ratio of the pencil so formed remains constant when the point moves along the curve.

6. Show that the homogeneous trilinear equation of a curve becomes also the equation of the polar reciprocal of the same curve, with respect to any given circle, by using as co-ordinates in the latter case the perpendiculars drawn from three fixed points upon a variable tangent.

7. The area of a prolate or curtate cycloid $= (2m + 1)$ times the area of the circle whose diameter is the axis of the curve, $m : 1$ being the ratio of the radius of the rolling circle to the distance from its centre to the generating point.

8. Given the general equation of surfaces of the second degree, find the expressions for the co-ordinates of the centre, and explain the nature of the locus when these expressions take the form of $\frac{0}{0}$.

9. If a cone be circumscribed to a central surface of the second degree, its three axes are, respectively, normals to the three surfaces, *confocal* (*i.e.* having the same focal conics) with the given one, which can be described through the vertex of the cone.

10. Given the differential equation of a surface, $dz = p\,dx + q\,dy$, find the equations of a normal drawn from a given point on the surface, the co-ordinates being supposed rectangular.

11. If a second normal, drawn from a point of the surface infinitely close to the former point, meet the former normal, prove that the segment intercepted between the surface and the point of intersection is given by a quadratic equation, and find the equation, the data being the same as before.

12. Find the first integral and also the complete integral of the equation $r\,t - s^2 = 0$, and show what class of surfaces is represented by it.

13. If a normal section and an oblique section be made by planes drawn through any tangent to a surface, the radius of curvature of this latter section, at the point of contact, is the orthographic projection of the corresponding radius of curvature of the former. Required a geometrical proof.

*27th September*, 1853, 2 *o'clock, p.m.*

## MECHANICS AND OPTICS—*Examiner, George F. Shaw, F.T.C.D.*

NOTE.—The numbers subjoined to the questions, denote the relative value of the corresponding answers.

1. Prove that the components of the attraction exercised by a solid homogeneous ellipsoid on an external point are—

$$X = -\frac{3\,M f\,\alpha}{A^3}L; \quad Y = -\frac{3\,M f\,\beta}{A^3}\;\frac{d.\,\lambda\,L}{d\,\lambda}; \quad Z = -\frac{3\,M f\,\gamma}{A^3}\;\frac{d.\,\lambda'\,L}{d\,\lambda'};$$

where $M$ is the mass of the attracting ellipsoid, $A$ its least semiaxis, $\alpha, \beta, \gamma$, the co-ordinates of the external point—

$$\lambda^2 = \frac{B^2 - A^2}{A^2}; \quad \lambda'^2 = \frac{C^2 - A^2}{A^2};$$

$$\text{and } L = \int_0^{\frac{A}{A'}} \frac{u^2\,du}{(1+\lambda^2 u^2)^{\frac{1}{2}}\,(1+\lambda'^2 u^2)^{\frac{1}{2}}};$$

$u$ being the ratio $\frac{a}{a'}$, of the axes of two ellipsoidal surfaces, one of which bounds the differential element of the attracting solid and is similar to its bounding surface, while the other is the surface confocal to the first and passing through the attracted point. (Six.)

2. From the above equations show that in an oblate spheroid, the equation of which is—

$$\frac{x^2}{a^2} + \frac{y^2 + z^2}{a^2\,(1+\lambda^2)} = 1;$$

the components of the attraction which it exerts on a point at its surface are—

$$X = \frac{4\,\pi\,\rho f x}{\lambda^3}\,(1+\lambda^2)\;[\tan.^{-1}\lambda - \lambda];$$

$$Y = \frac{2\,\pi\,\rho f y}{\lambda^3}\,[\lambda - (1+\lambda^2)\tan.^{-1}\lambda];$$

$$Z = \frac{2\,\pi\,\rho f z}{\lambda^3}\,[\lambda - (1+\lambda^2)\tan.^{-1}\lambda].$$

(Three.)

3. (*a*) To the above spheroid, supposed fluid, let an angular velocity $\omega$, be communicated, the least of its axes being the axis of rotation; show that the condition that equilibrium exist at its surface is— (Two.)

$$\frac{3\,\lambda + 2\,\epsilon\,\lambda^3}{3+\lambda^2} - \tan.^{-1}\lambda = 0;$$

$$\text{where } \epsilon = \frac{\omega^2}{4\,\pi f \rho}; \text{ and—}$$

(*b*) From hence show that for every angular velocity below a certain limit, the spheroidal figure is compatible with equilibrium. (Four.)

4. From any point in a solid body draw right lines, the squares of the reciprocals of which are proportional to the body's corresponding moments of inertia. Show that the locus of their extremities is an ellipsoid, and reduce its equation to the simplest form. (One.)

5. Show that the point being fixed, and any number of impulses being communicated to the body (*a*), the axis of rotation at each instant is that radius of the above (Poinsot's) ellipsoid, which terminates at the tangent plane parallel to the plane of the resulting couple. (Two.)

(*b*). The angular velocity round this momentary axis is proportional to the radius round which it takes place, and (One.)

(*c*). Gives a constant component round the axis of the resulting couple. (One.)

(*d* and *e*). Both the momentary axis of rotation and the axis of the resulting couple, describe in the interior of the body cones of the second degree. (Three.)

6. (*a*). Apply D'Alembert's principle to deduce the differential equations of motion of a flexible string, acted on at both extremities, and along its whole length by forces $X, Y, Z$. (One.)

(*b*). Suppose the string to be fixed at one end, $A$, and passing over a pulley at $B$, to be kept stretched by a weight $T$ hung at the other end. Let the portion between $A$ and $B$ be slightly disturbed, so as to assume the form of a plane curve $y = \phi\,(x)$, the tangents to which curve make infinitely small angles with $AB$ (axis of $x$). Show that in this case, the equation of motion of the string is—

$$y = \frac{\phi\left(x + t\sqrt{\frac{T}{\varepsilon}}\right) + \phi\left(x - t\sqrt{\frac{T}{\varepsilon}}\right)}{2}$$

$\varepsilon$ being the mass of a unit-length of the string. (Four.)

7. (*a.*) What equation exists between the vis viva, the applied work, and the expended work, in a machine? (One.)

(*b.*) From this equation show the effect of a massive fly-wheel in obviating sudden changes of velocity. (One.)

8. Barometric observations are taken at two heights, $z_0$ and $z_1$ above the sea level. Corrected for temperature, the observed pressures are $h_0$ and $h_1$. Show that the height to be measured, $z_1 - z_0$, or

$$Z = \frac{k(1+\alpha\theta)R^2}{M g r^2}\left[\log. \frac{h_0}{h_1} + 2\log\left(1+\frac{Z}{R}\right)\right]\left(1+\frac{Z}{R}\right)$$

$M$ being the log. modulus, $\theta$ the mean of the temperatures at the two places, $r$ = radius of earth, and $g$ = gravity at sea level; $R = r + z_0$, and $k$ and $\alpha$ the constants of the equation; pressure $= k(1+\alpha\theta) \times$ density. (Three.)

9. Let $\alpha, \beta$ and $\alpha^1, \beta^1$ be the co-ordinates of two points taken, one in the incident, the other in the reflected portion of a ray of light. If $dy = p dx$, be the equation of the reflecting curve, prove that the equation of the reflected ray is—

$$(\beta^1 - y)\left[(p^2-1)(\alpha - x) - 2p(\beta - y)\right] + (\alpha^1 - x)\left[(p^2-1)(\beta - y) + 2p(\alpha - x)\right] = 0$$ (Three.)

10. Show that $\alpha^1$ being the vergency of a refracted ray, and $\rho$ the curvature of the spheric surface,

$$d\,\alpha^1 = \frac{m-1}{2m^2}(\rho - a)^2\left[\rho - (m+1)\,a\right]x^2$$

and hence deduce the aberration. (Three.)

11. Let $\rho$ be the radius of the least circle of chromatic aberration, A the aperture of the lens, $f$ the focal length, and $d$ the distance of the object from the surface. Prove that—

$$2\,\rho = \text{A}\frac{\Delta\mu}{\mu - 1}\,\frac{d}{f}$$ (Three.)

12. In order that a distant object may be distinctly seen through three lenses, the equation of condition—

$$\frac{1}{e - f} + \frac{1}{e' - f''} = \frac{1}{f'}$$

must hold, $e$ and $e'$ being the intervals between the lenses, and $f$, $f'$, and $f''$ their focal lengths. (Two.)

13. Let $A'$, $A''$, $A'''$, &c., be the effective apertures of all the lenses of a system, after the first or object glass. Prove that

$$\frac{A'}{f'} + \frac{A''}{f''} + \text{\&c.}, + \frac{A^{(n)}}{f^{(n)}} = (\rho - 1)\Theta$$

where $\Theta$ is the field of view, and $\rho$ the ratio of the tangents of the first and the last visual angles. (Five.)

Total value of answers to the above questions—Forty nine.

*27th September*, 1853, 2 *o'clock, p.m.*

### HEAT AND ELECTRICITY—*Examiner, G. F. Shaw, F.T.C.D*

NOTE.—The numbers in parentheses denote the values of the answers to the questions opposite them.

1. Find the equation of motion of heat in an indefinite solid. (One.)
2. Deduce and integrate the equation of motion of heat in a ring. (Three.)
3. A system of very small plane electric currents, equal to each other in area and intensity, are ranged at equal distances along the surface of a canal, of any form, the directrix of which intersects their planes at right angles: find the total action on any element of another current. (Two.)
4. Find the direction of this resulting force, and its law of variation, when the canal is indefinitely extended in one direction. (Two.)

Total value of answers to questions in this paper—Eight.

*27th September*, 1853, 2 *o'clock, p.m.*

### CRYSTALLOGRAPHY—*Examiner, Frederick M'Coy, F.G.S.L., Hon. F.C.P.S.*

1. State the lengths and inclinations of the axes in all the systems of crystallization.
2. State the law of symmetry, influencing the number of like secondary faces in the cubic, the pyramidal, and the anorthic or triclinic systems.
3. Draw a figure compounded of the faces $\infty\ 0\ \infty$, 0, and $\infty\ 0$, and the faces, which in the cubic system, must co-exist with them.
4. What is the law according to which the individuals of twin crystals are united?
5. Explain in detail the method of using the reflecting goniometer.
6. Explain briefly the method of calculating the positions of the faces of crystals when projected on the surface of a sphere, and give one or two simple illustrations of the process, using the angles between normals instead of the angles between faces.

*28th September*, 1853, 2 *o'clock, p.m.*

CHEMISTRY—*Examiner, Edmund Ronalds, Ph. D.*

1. In preparing the solution of $NH_4S$, HS for analytical purposes, how do you know when the solution is properly saturated with gas?

2. What impurities are frequently contained in commercial sulphuric, nitric, and hydrochloric acids, respectively, and how may they be detected?

3. What arguments are brought forward in support of the salt-radical theory, and what objections may be raised to it?

4. What is the great distinction between soluble double salts and salts of a bibasic acid?

5. How does the theory of chemical types, as established by Laurent, conflict with Berzelius' electro-chemical theory? And what support does the former receive from the series of recently discovered artificial organic bases?

6. Write the formulæ for the radicals, aldehydes, ethers, alcohols, and volatile acids, of the respective series to which pyroxilic spirit, alcohol, and oil of grain belong.

7. Give an example of an homologous series of organic compounds, and state the grounds upon which the series is said to be homologous.

8. What is the constitution of the amidogen, imidogen, and nitrile bases, respectively, and what analogy do their salts present to those of ammonia?

9. How would you ascertain the relative amounts of carbonated and caustic alkali in a specimen of soda ash?

10. Describe the process for estimating the value of bleaching powder by means of arsenious acid?

11. How may cane-sugar be distinguished from grape-sugar?

12. How much carbonic acid and alcohol should be obtained by the fermentation of 1 ℔ of cane-sugar?

N.B.—Crystallized cane-sugar $C_{12}H_{11}O_{11}$—

| | | |
|---|---|---|
| Equiv. of | carbon, | 6 |
| ,, | hydrogen, | 1 |
| ,, | oxygen, | 8 |

13. In estimating the amount of peroxide of iron in a solution containing magnesia, why is it necessary to add chloride of ammonium before precipitating the iron?

14. Describe the three processes employed in different localities on a manufacturing scale for obtaining acetic acid.

15. Upon what experiment does the hypothetical existence of $NH_4$ rest?

16. Sulphate of magnesia yielded on analysis the following composition:—

| | |
|---|---|
| Magnesia, | 16·04 |
| Sulphuric acid, | 32·53 |
| Water, | 51·43 |
| | 100·00 |

what will be the rational formula for the compound?

N.B.—Equiv. of magnesium, .. 12

| | | |
|---|---|---|
| N.B.—Equiv. of | magnesium, | 12 |
| ,, | sulphur, | 16 |
| ,, | oxygen, | 8 |
| ,, | hydrogen, | 1 |

17. What is the usual method employed for ascertaining the atomic weight of an organic acid?

18. What was the theory known as the protein theory of Mulder, and why is it untenable?

19. Upon what chemical change does the drying property of certain oils depend, and by what means may the change be accelerated?

20. In a substance containing silica, alumina, lime, and potash, how would you proceed to separate the several ingredients, with a view to the estimation of their relative quantities?

*29th September*, 1853, 9 *o'clock, a.m.*

ZOOLOGY.—*Examiner, Dr. Dickie.*

1. Explain the position and nature of the organs of offence or defence in Rhinocerotidæ as contrasted with those of Bovidæ and Cervidæ; mention any relations between the development of such appendages and the dentition of the Rhinocerotidæ, and state by whom such relations have been indicated.

2. Describe the general peculiarities of the hard parts of the Chelonia; state the opinions entertained respecting their homologies, and mention the families into which they are usually divided.

3. Mention the general principles on which Cuvier's classification of fishes is founded; state his system, and any objections which may be urged against it.

4. State the leading characteristics of the mammalian fauna of Australia, indicating orders, &c., well represented, those of which the examples are few, and those which are absent.

BOTANY.

1. State the relative values, in classification, of characters founded on the nature of the elementary tissues, adhesion or non-adhesion in the flower, and the numbers of its parts; illustrate by reference to examples.

2. Explain the terms Gymnogen, Thallogen, and Acrogen; give their derivations; explain the peculiarities of each, and illustrate by examples.

3. Explain fully the homologies of the fruits of the Pomeæ, Amygdaleæ, and Roseæ.

4. State the general characters of the Cruciferæ; mention also the suborders, their characters, and the derivations of their names. Give examples.

5. State the orders and genera of plants which chiefly characterize the Arctic zone, and mention under what circumstances species representing the same might be expected in low latitudes.

*29th September*, 1853, 2 *o'clock, p.m.*

### Elements of Geology and Physical Geography.

*Examiner, Frederick M'Coy, F.G.S.L., Hon. F.C.P.S.*

1. State the distinguishing characters of aqueous and of igneous rocks.

2. State the particulars in which syenite differs from granite and from greenstone.

3. Illustrate by diagrams the terms "anticlinal" and "synclinal axes," in several flexures of strata, keeping the relations between the scarp and talus sides of the flexures and the centre of disturbance indicated by the theory of Professor Rogers. Also, show the difference between valleys of elevation and of denudation.

4. Mention some of the genera of fossils, which would enable you to discriminate with certainty between rocks of the Tertiary, Cretaceous, and Palæozoic ages.

5. Write down in order the subdivisions of the oolitic series.

6. What do you understand by "river basins?" How would you divide an ordinary map so as to show the river basins?

7. Give the elevation above the sea level of a few of the principal lakes of North America, and the depression below the sea level of a few of those in Asia Minor.

8. What is the most general cause of winds? Explain the production of the "land and sea breezes," and describe the direction and causes of the "trade winds."

9. What is meant by isothermal, isotheral, and isochimenal lines? How are maps of them formed?

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## EXAMINATION FOR DEGREE OF LL.B.

*27th September*, 1853, 9 *o'clock, a.m.*

### Law of Property and Principles of Conveyancing—*Examiner, Dr. Lawson.*

1. What is a tenancy at will? What is a tenancy at sufferance?

2. Where a mortgagor remains in possession, what different kinds of tenancy may subsist between him and the mortgagee, and what are the circumstances which determine the nature of the tenancy?

3. What is the practical importance of determining whether a tenant be a tenant for years, a tenant at will, or a tenant at sufferance?

4. What is an *interesse termini?*

5. Can an estate *pur autre vie* be entailed, and how does such an entail differ from the ordinary entail?

6. How does the statute law regulate the devolution of estates *pur autre vie?*

7. What are the rules to be observed in the creation of a valid remainder?

8. What kind of remainder is a remainder to trustees to preserve contingent remainders?

9. State the substance of the legislative provisions of the 11 Geo. II., c. 19, and 4 and 5 Wm. IV., c. 22, with respect to the apportionment of rents.

10. In case of the death of a tenant in fee, is there any apportionment of the rent payable by his lessee for years, as between the real and personal representatives of the tenant in fee?

11. What was the common law as to the liability of an heir or devisee of freehold lands to the specialty debts of the ancestor or testator?

12. How has this been altered by statute?

*27th September*, 1853, 9 *o'clock, a.m.*

### Jurisprudence—*Examiner, Professor Heron.*

A. 1. Into what did Puffendorf, Cocceii, Heineccius, and Domat resolve the Law of Nature?

2. What was held to be the first principle of natural law—
   (*a.*) By Hobbes and Spinoza?
   (*b.*) By Chancellor D'Aguesseau, Thomasius, and Pestel?

3. Other jurists have derived the natural law from the benevolent and social dispositions of the human race; what phase was used to express this—
   (*a.*) By Grotius?
   (*b.*) By Cumberland and Shaftesbury?
   (*c.*) By Adam Smith?

4. In what did the Stoics consider the Law of Nature to consist? By whom have they been followed in modern times?

B. 1. Define a motive.

2. How does Bentham divide motives?

3. There are four rules for measuring the depravity of disposition indicated by an offence.

4. The mischief of an act may be divided into two portions.

5. Bearing in mind the principle of utility, how far only ought punishment to be admitted?

6. The evil of punishment divides itself into four branches, by which so many different sorts of persons are affected.

C. 1. What effect upon the rate of interest have laws against usury?

2. State briefly the advantages of the codification of the law?

3. What effect would a register of personal debts have on the system of general credit, and on the trade of lending money?

*27th September*, 1853, *2 o'clock, p.m.*

### Equity—*Examiner, Dr. Lawson.*

1. Can a purchaser of an estate obtain any relief against a vendor for false affirmation of value, or that the estate was valued by a competent person at a price greater than it really was?

2. If the same solicitor be employed by purchaser and vendor, to what dangers is the purchaser thereby exposed?

3. What is the effect of a vendor employing puffers to bid at a sale by auction of real estate?

4. What is the vendor's lien for unpaid purchase money, and how may it be lost?

5. How must suits in Equity, on behalf of infants and married women, be instituted; and is there any difference between them in respect of requiring security for costs?

6. How far has the rule, "that all persons having interests should be parties to a suit," been modified?

7. What is now the consequence of a want of parties to a suit?

8. Will a Court of Equity carry out a trust deed at the instance of a creditor, not a party to it, but named in a schedule, and whose demand is included in the provisions of the deed?

*27th September*, 1853, *2 o'clock, p.m.*

### Common and Criminal Law—*Examiner, Dr. Lawson.*

1. State the decision in the case of *Wain* v. *Warlters.*

2. When must a promise to answer for the debt of another be in writing, and when not?

3. What is the leading case upon the subject of bailments, and what was the point decided in that case?

4. What is the extent of the liability of a gratuitous bailee?

5. What is the responsibility of the bailee in the bailment called *Commodatum?*

6. What is the distinction between a pawn, a lien, and a mortgage?

7. Upon the trial of a prisoner, can evidence be given of a previous conviction; and if so, for what purpose?

8. In cases of property taken by a servant, what is the distinction between larceny and embezzlement? Is the distinction now of much practical importance?

*27th September*, 1853, *2 o'clock, p.m.*

### Civil Law.—*Examiner, Professor Heron.*

1. Fidei-commissa were invented in Rome for the same purposes as uses in England.

2. For what purposes were codicils invented?

3. Justinian divides the law of inheritance into four portions.

4. There are four species of contracts *quæ re contrahuntur.*

5. Define *dolus* and *culpa.*

6. Distinguish *pignus* from *hypotheca.*

7. What forms of ceremonials, in the rites of the Church, have been supposed to have been derived from the Roman *stipulatio?*

8. Voet defines a condition.

9. Since all contracts arise from consent, for what reason is one class, in particular, termed *ex consensu?*

10. Give the definition and derivation of the term *emphyteusis.*

11. From what does Cujacius derive the origin of fiefs? Is his opinion correct? If not, why not?

12. What is the definition given by Heyneccius of a quasi contract?

*28th September*, 1853, *9 o'clock, a.m.*

### Pleading, Practice, and Evidence—*Examiner, Dr. Lawson.*

1. What is the general rule as to the party in whose name an action on a contract must be brought?

2. Is there any difference in this respect, between simple contracts and contracts under seal?

3. In what cases may a person, who is an agent merely, sue or be sued upon a contract?

4. In what cases may husband and wife join in an action, and in what cases must they join?

5. What was the rule as to the joinder of actions, and how has it been altered by the Common Law Procedure Amendment Act, 1852?

6. What are the several modes of correcting the erroneous ruling of a judge at Nisi Prius; and state shortly the practice with respect to each of them?

7. Why is it better for a plaintiff to be non-suited than to have a verdict against him; and is there any case in which it is immaterial whether there be a non-suit or a verdict for defendant?

8. What is now the power of a judge to amend the record at a trial, and can his decision be questioned in the court above, in case he amends or refuses to amend?

9. In order to admit secondary evidence of a deed or document, what facts must be established?

10. When is parol evidence admissible to explain an ambiguity in a written instrument?

11. When is a receipt for money conclusive evidence, and when may it be contradicted or explained?

12. In an action of assumpsit containing a special count, and the common money counts, what is the effect of a payment of money into court, generally on all the counts, and of a payment on the common counts only, and what is the effect of those payments, respectively, on the trial of the case?

*28th September*, 1853, 9 *o'clock, a.m.*

### CONSTITUTIONAL LAW—*Examiner, Professor Heron.*

1. What is the date of Magna Charta?

2. Give an historical account of the origin of the Courts of Queen's Bench, Common Pleas, and Exchequer? What is the date of the institution of Justices of Assize?

3. In reference to the privileges of the nobility, what has been the prominent distinction between the constitution of England and that of every other country in Europe?

4. Give the date and principal provisions of the Petition of Right.

5. Give the date and principal provisions of the Bill of Rights.

6. Give the date and principal provisions of the Act of Settlement.

*28th September*, 1853, 9 *o'clock, a.m.*

### COLONIAL LAW—*Examiner, Professor Heron.*

1. Mention the resolutions of the Privy Council previous to 1722, as to settled colonies, conquered colonies, and their laws.

2. Mention the sources of the law, as now administered in British India, in reference to
   (*a*). Criminal justice:
   (*b*). The admissibility of evidence, and the competency of witnesses:
   (*c*). Inheritance:
   (*d*). Contract.

3. Under what modification is the Civil law established in the British colonies of Guiana, Cape of Good Hope, and Ceylon?

4. In what body is the power of legislation vested for British India?

*28th September*, 1853, 9 *o'clock, a.m.*

### INTERNATIONAL LAW—*Examiner, Professor Heron.*

1. Define international law?

2. What principles of public international law were enforced by the Council of the Amphictyonic League?

3. Sallust, in the history of the Jugurthine War, appears to allude to some principles of international law, as recognised by the Romans.

4. Explain the phrase "comity of nations."

5. State briefly the rules recognised in cases where the *lex loci* and *lex domicilii* conflict—
   (*a*.) As to real property.
   (*b*.) As to personal property.
   (*c*.) As to the state and capacity of persons.
   (*d*.) As to contracts.

6. Define war.

7. What was the Holy Alliance, and on what grounds did the government of England refuse to join it?

8. What is the jus postliminii? How far does it operate—
   (*a*.) In the case of captured vessels.
   (*b*.) In reference to real property.

*28th September*, 1853, 9 *o'clock, a.m.*

### LAW OF PROPERTY AND PRINCIPLES OF CONVEYANCING—*Examiner, Dr. Lawson.*

1. State the rule against perpetuities.

2. When an estate is limited to take effect on the failure of a previous limitation which is void for remoteness, what is the effect upon the limitation over?

3. Does the objection of remoteness apply to a contingent remainder?

4. What is the construction of the words, "dying without issue," in wills of personal and of real estate, before and since the 1st Vict., c. 26?

5. In this country, what restriction does the law impose upon the power of a testator to direct the accumulation of rents and profits?

6. State the substance of the decision of the Court of King's Bench in *Perrin* v. *Blake*, and the grounds on which it has been impeached.

7. What are the different species of powers?

8. What is the law at present with respect to illusory appointments?

9. If a tenant be evicted from part of the premises by the landlord, or persons claiming under him by grant subsequent to the lease, what is the effect upon the remedies of the landlord, and the rights of the tenant?

10. In a similar case, what is the effect of eviction by title paramount?

11. What is the difference between the position of a lessee and of the assignee of a lessee, in respect to the liability to the payment of rent and keeping in repair?

12. Premises are in the occupation of a tenant, from year to year, who holds without any written agreement; they are burned by an accidental fire, in the middle of a half-year; what are the rights of the landlord as to compelling repair and payment of rent?

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## HONOR EXAMINATION FOR CANDIDATES PASSED FOR THE DEGREE OF LL.B.

*29th September*, 1853, 9 *o'clock, a.m.*

### EQUITY AND BANKRUPTCY—*Examiner, Dr. Lawson.*

1. When a party entitled to a charge upon an estate subsequently becomes entitled to the estate itself, when does the charge merge, and when does it not merge?

2. What act is necessary to be done by the purchaser of a chose in action or equitable right, in order to complete his title?

3. In the case of several purchasers or incumbrancers of the same fund, what circumstances generally determine the question of priority?

4. Mention the two principal cases which have established the doctrine adverted to in the last two questions.

5. What is the effect of bankruptcy upon judgments obtained against the bankrupt before he became a trader, and since?

6. If a bankrupt, on the eve of his bankruptcy, fraudulently deliver goods to one of his creditors, what are the rights and remedies of the assignees?

*29th September*, 1853, 2 *o'clock, p.m.*

### COMMON AND CRIMINAL LAW—*Examiner, Dr. Lawson.*

1. *Ubi jus, ibi remedium.* What is the case usually cited to exemplify this maxim?

2. An action cannot be sustained for a damage not occasioned by an *injury*. What is the mode of determining whether the act complained of amounts to an injury?

3. Are there any cases in which an act may be in law an injury, and may produce damage, and yet an action cannot be maintained?

4. In what cases can an action be maintained against an officer acting in execution of a public duty for something done by him in performing that duty?

5. When are the declarations of conspirators evidence against co-conspirators? What must be established in order to render them admissible in evidence?

6. What is now necessary in order to render the statement of a prisoner to a magistrate receivable in evidence against the prisoner?

*29th September*, 1853, 2 *o'clock, p.m.*

### PLEADING, PRACTICE, AND EVIDENCE—*Examiner, Dr. Lawson.*

1. How far has the Common Law Procedure Amendment Act, 1853, abolished the distinction between forms of actions, or the necessity of considering whether a cause of action would have existed under the former system of pleading?

2. What will be the test to determine whether any action at law can be sustained in a case, after that Act comes into operation?

3. What are the consequences of
   Non-joinder of plaintiffs,
   Mis-joinder of plaintiffs,
   Non-joinder of defendants,
   Mis-joinder of defendants,
in actions of contract and tort respectively?

4. How has the law, as to mis-joinder, and non-joinder, been altered by the Common Law Procedure Amendment Act, 1853?

5. In an action on the case for the breach of a particular duty, what averments are necessary in order to make the declaration good?

6. When the execution of a deed is attested by two witnesses, one of whom is dead, and the other out of the jurisdiction, what is the proper mode of proving the execution of the deed?

7. When a party produces a deed upon a notice to produce, when is it necessary for the party calling for it to prove its execution?

8. When is a party permitted to prove a different consideration from that stated in a deed, or in an instrument not under seal?

*30th September, 1853, 9 o'clock, a.m.*

### JURISPRUDENCE—*Examiner, Professor Heron.*

### A.

1. The land revenue of British India is collected under three distinct systems. The Zemindary settlement of Bengal is a fixed assessment made with a class of landholders whom the government of 1793 recognised as the legitimate owners of the soil. The amount payable to government on each estate is paid in perpetuity; and so long as the Zemindar pays the fixed amount of assessment punctually to the Company, he and his descendants remain, at this fixed rate, in possession. Under the Ryotwar system the government let the land to the cultivator generally on an annual lease. The amount of rent is increased or diminished each year according to the ascertained value of the holding. The assessor fixes the amount to be paid, and the Ryot takes it or not as suits his convenience. The third system, now in force in the north-western provinces of India, is a system of long leases, settlements made for twenty or thirty years with different descriptions of tenants. The village communities have been recognised wherever they existed in a perfect state; and each village, whether the proprietary right was claimed by an individual or by a community, was made the limit of a separate settlement.

(*a.*) Do you approve of any, and which of these systems.
(*b.*) Suggest an improved scheme for the collection of the land-tax.

2. Appeal from Mr. Bayues, C. Judge of Madura. The point for decision in the case was the authenticity or otherwise of the document No. 78. "The special appellants urge that exhibit No. 78 is not the copy of an original deed, but the copy of a copy; that the witness called to prove that the original was deposited with him declared he knew nothing about it, and that the Civil Judge refused to allow them to summon the alleged attesting witnesses to the deed, or to adduce documentary evidence to prove it to be a forgery."—3 *Sudder Reports* (1851), p. 161.

(*a.*) Give your opinion on the above case and the conduct of the judge.
(*b*) Should the genuineness of a document be allowed to be proved or disproved by the comparison of handwriting.

3. A man was stabbed in the belly, during the night, whilst sleeping on his cot by the side of his son. The judge, Mr. Forsyth, found the prisoner guilty, but recommended that he should be transported for life because of the darkness of the night, which rendered the testimony of those who said they saw the prisoner, suspicious, and because the deceased might possibly have survived, had his wound been dressed without loss of time. —1 *Foujdaree Criminal Reports*, p. 1. State your opinion of the above case.

4. A man was convicted of a murder committed nineteen years before. The sessions' judge says, he has behaved well ever since, and suggests transportation. The Foujdaree second judge says—"I cannot recognise the validity of any of the reasons advanced by the sessions' judge, many of which are only conjectures, for a mitigation of the law; yet I am of opinion that, considering the great lapse of time which has elapsed since the murder was committed, the execution of the prisoner is not required for public example."—1 *Foujdaree Criminal Reports*, p. 196. State your opinion of the above case.

5. Forgery. Judgment:—"The prisoners are charged with fabricating a receipt for the payment of a moiety due on a bond, with a view of defrauding the prosecutor of the residue claimable upon the bond, under the representation that the prosecutor was liable for the same. There is no evidence of the bond being a false one; and without proof of this fact, the charge of fraud cannot, it appears to me, stand."—1 *Foujdaree Criminal Reports*, p. 297. State your opinion of the above judgment.

### B.

1. Property can be entailed in some parts of Germany for ever; in England for a life or lives in being and twenty-one years afterwards; in France, not at all. State the advantages and disadvantages of each system. Of which do you approve?

2. With respect to the election of representatives in parliament, state the advantages and disadvantages of voting by lists, or separately for each candidate, or for each two, or three, or four candidates, according to the number of representatives the electoral division may have.

3. Whether do you approve of the system of collecting the suffrages by means of the electors voting at a predetermined place and time, or by means of voting papers left at the houses of the electors, and collected by a public officer? State the advantages and disadvantages of each system.

4. Whether do you consider that the electoral division should possess only one representative, or more than one representative? State the advantages and disadvantages of each system, especially with regard to the representation of the minority.

5. It has been proposed by some publicists, that each elector in the community should be allowed one vote for one candidate, and that the requisite number of candidates who might have the majority of suffrages from the entire country should be elected. Under this plan there would be no electoral divisions. What advantages, under this system, would

distinguished public men possess in reference to their election? State briefly your opinion of such a plan.

6. In the law of England a will of lands is generally governed by the *lex loci rei sitæ*. Thus, a will made in France and written in French must, in order to operate on lands in England, contain expressions which, being translated, would comprise the lands in question, and must be executed and attested in precisely the same manner as if the will were made in England. But in respect of a will of personal property the *lex domicilii* prevails, and the ecclesiastical courts will grant probate of an instrument ascertained to be testamentary according to the law of the foreign domicil, though invalid and incapable of operation as an English will. Is there any reason in natural law for the distinction? State the rule which ought to be adopted.

7. In the law of England, with respect to conditions precedent which are impossible or illegal, a different rule is applicable to bequests of personal property from that which is prevalent respecting devises of realty. What is the rule in each case? Is there any reason in natural law for the distinction? What is the rule in the law of England as to impossible, illegal, or repugnant conditions subsequent? State the general rule which ought to be adopted whenever such conditions are imposed, whether in deeds or wills, and whether they be precedent or subsequent.

8. Lord Ellenborough, in the case of *Elwes* v. *Mawe* (3 East 38), decided that the tenant who erects agricultural fixtures has no absolute property in them, and that he is not entitled to remove them as in the case of fixtures for the purposes of trade. Was this decision agreeable to natural law? If so, state the reason. If not, why not?

### C.

1. According to Bentham the enunciation of truth is supported by four sanctions.

2. Define an oath. In what form should an oath be taken? State the result of the decision in *Omychund* v. *Barker*.

3. What is pre-appointed evidence? Give some principal examples of pre-appointed evidence provided by the laws of England.

4. What are the objections to hearsay evidence? In the law of England the rule against hearsay evidence has been relaxed in six cases.

5. What species of fallibility are incident to direct, and what to circumstantial evidence; and what caution should be adopted in the use of such evidence? What is your opinion of the presumptions arising from the rinsing of the bottles in Donnellan's trial, and of the direct testimony of Houseman in that of Eugene Aram?

*30th September*, 1853, 9 *o'clock, a.m.*

### CIVIL LAW—*Examiner, Professor Heron.*

1. The system of castes was maintained by certain enactments in the XII Tables.

2. What were the Valerian, Canuleian, and Licinian Laws?

3. What law, and in what year passed, finally abolished the distinctness of the patrician caste?

4. Was the agrarian bill of Tiberius Gracchus an interference with the rights of private property? If not, why not?

5. What were the *actio exercitoria* and the *actio institoria?*

6. From what portions of the Civil law were the English systems of common law pleading and Equity pleading respectively derived?

7. Have mortgages been borrowed from the Civil law? State Mr. Butler's opinion.

8. The probate of wills in the Ecclesiastical Courts is derived from certain portions of the Civil law.

9. Servitudes in the Civil law include two species of property in the law of England.

10. How are the Institutes, Pandects, Code, and Novels respectively divided and cited?

*30th September*, 1853, 2 *o'clock, p.m.*

### CONSTITUTIONAL LAW—*Examiner, Professor Heron.*

1. In the development of the constitution what has been the most important privilege of the parliament of England?

2. Give an historical account of the abolition of villeinage. What existing tenure of land in England has been derived from villeinage?

3. At what time was the English parliament divided into two houses? State Mr. Hallam's opinion. When were knights of the shire and when were burgesses first returned?

4. What was the Cabal administration?

5. Mention the principal constitutional questions which arose upon the impeachment of Lord Danby.

6. One question which arose on the trial of Lord Danby was not decided until the impeachment of Warren Hastings.

7. When were the names *Whig* and *Tory* first applied to English parties? What is the derivation of each?

8. Mention the principal acts of parliament passed in the reign of Charles II.

9. When was the septennial bill passed, and for what purposes?

10. When was the militia first established?

11. What were the laws of tanistry and gavelkind in the ancient history of Ireland?

12. Give the date and provisions of Poyning's law.

*30th September*, 1853, 2 *o'clock, p.m.*

### COLONIAL LAW—*Examiner, Professor Heron.*

1. Classify the several heads under which the law is administered in the Supreme Courts of the three presidencies of British India?

2. The jurisdiction of the Supreme Courts of judicature in British India extends over several distinct classes of persons in certain cases. State these, and mention the several jurisdictions with which these courts are invested.

3. What are the Sudder Dewanee Adawlut courts?

4. Subject to what restrictions is the right of legislation for British India vested in the Governor-General in council?

5. What is the ultimate appellate jurisdiction for British colonies?

6. There are two schools of Hindoo law.

*30th September*, 1853, 2 *o'clock, p.m.*

### INTERNATIONAL LAW—*Examiner, Professor Heron.*

1. Enumerate the earliest writers upon the law of nations in Europe.

2. What distinction between maritime and land warfare is recognized by the existing law of nations?

3. Under what restrictions are neutral states entitled to freedom of commerce?

4. Civilians have divided statutes into three classes.

5. Huberus has laid down three maxims on the conflict of laws.

6. How far is the right of intervention limited in international law? Mention the instances in which the Government of England has refused to sanction the right of intervention during the present century.

7. Mention the principal instances in which the right of intervention has been exercised by England.

8. For what purposes does the right exist of visiting and searching merchant ships upon the high seas? And what is the penalty for a violent contravention of this right.

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## EXAMINATION FOR THE DEGREE OF A.B.

*20th September*, 1853, 9 *o'clock, a.m.*

### LATIN—*Examiner, Bunnell Lewis, A.M.*

Translate any two of the following extracts:—

#### VIRGIL.—ÆNEID, BOOK I.

Corripuere viam interea, qua semita monstrat;
Iamque adscendebant collem, qui plurimus urbi
Imminet, adversasque adspectat desuper arces.
Miratur molem Aeneas, magalia quondam,
Miratur portas strepitumque et strata viarum.
Instant ardentes Tyrii, pars ducere muros
Molirique arcem et manibus subvolvere saxa,
Pars optare locum tecto et concludere sulco;
Iura magistratusque legunt sanctumque senatum;
Hic portus alii effodiunt; hic alta theatri
Fundamenta locant alii, immanesque columnas
Rupibus excidunt, scenia decora alta futuris.

#### VIRGIL.—ÆNEID, BOOK VI.

Principio coelum ac terras camposque liquentes,
Lucentemque globum Lunæ Titaniaque astra
Spiritus intus alit, totamque infusa per artus
Mens agitat molem et magno se corpore miscet.
Inde hominum pecudumque genus vitaeque volantum,
Et quae marmoreo fert monstra sub aequore pontus.
Igneus est ollis vigor et coelestis origo
Seminibus: quantum non noxia corpora tardant,
Terrenique hebetant artus moribundaque membra.
Hinc metuunt cupiuntque, dolent gaudentque, neque auras
Dispiciunt clausae tenebris et carcere caeco,

#### HORACE.—SATIRES, BOOK II.

Vix tamen eripiam, posito pavone velis quin
Hoc potius quam gallina tergere palatum,
Corruptus vanis rerum, quia veneat auro
Rara avis et picta pandat spectacula cauda:
Tanquam ad rem attineat quidquam. Num vesceris ista,
Quam laudas, pluma? cocto num adest honor idem?
Carne tamen, quamvis distat nil, hac magis illa.
Imparibus formis deceptum te patet. Esto:

Unde datum sentis, lupus hic Tiberinus an alto
Captus hiet pontesne inter iactatus an amnis
Ostia sub Tusci? Laudas, insane, trilibrem
Mullum, in singula quem minuas pulmenta necesse est.

### HORACE.—EPISTLES, BOOK I.

Quem tenues decuere togae nitidique capilli,
Quem scis immunem Cinarae placuisse rapaci,
Quem bibulum liquidi media de luce Falerni,
Coena brevis iuvat et prope rivum somnus in herba,
Nec lusisse pudet, sed non incidere ludum.
Non istic obliquo oculo mea commoda quisquam
Limat, non odio obscuro morsuque venenat;
Rident vicini glebas et saxa moventem.
Cum servis urbana diaria rodere mavis,
Horum tu in numerum voto ruis; invidet usum
Lignorum et pecoris tibi calo argutus et horti.

### HORACE.—ARS POETICA.

Tibia non, ut nunc, orichalco vincta tubaeque
Aemula, sed tenuis simplexque foramine pauco
Adspirare et adesse choris erat utilis, atque
Nondum spissa nimis complere sedilia flatu;
Quo sane populus numerabilis, utpote parvus,
Et frugi castusque verecundusque coibat.
Postquam coepit agros extendere victor, et urbem
Latior amplecti murus, vinoque diurno
Placari Genius festis impune diebus;
Accessit numerisque modisque licentia maior.
Indoctus quid enim saperet liberque laborum
Rusticus urbano confusus, turpis honesto?

### SALLUST.—CATILINE.

Tantummodo incepto opus est: cætera res expediet. Etenim quis mortalium, cui virile ingenium est, tolerare potest, illis divitias superare, quae profundant in extruendo mari, et montibus coæquandis, nobis rem familiarem etiam ad necessaria deesse? Illos binas aut amplius domos continuare; nobis larem familiarem nusquam ullum esse? Cum tabulas, signa, toreumata emunt, nova diruunt, alia ædificant; postremo omnibus modis pecuniam trahunt, vexant; tamen summâ lubidine divitias suas vincere nequeunt. At nobis est domi inopia, foris æs alienum; mala res, spes multo asperior. Denique quid reliqui habemus, præter miseram animam? Quin igitur expergiscimini? En illa, illa, quam sæpe optâstis, libertas, præterea divitiæ decus gloria in oculis sita sunt: fortuna ea omnia victoribus præmia posuit.

### SALLUST.—JUGURTHA.

Atque ego credo fore, qui, quia decrevi procul a republica ætatem agere, tanto tamque utili labori meo nomen inertiæ imponant: certe, quibus maxuma industria videtur, salutare plebem et conviviis gratiam quærere. Qui si reputaverint, et quibus ego temporibus magistratus adeptus sim, et quales viri idem adsequi nequiverint, et postea quæ genera hominum in senatum pervenerint; profecto existumabunt, me magis merito, quam ignavia, judicium animi mei mutavisse, majusque commodum ex otio meo quam ex aliorum negotiis reipublicæ venturum. Nam sæpe ego audivi, Q. Maxumum, P. Scipionem, præterea civitatis nostræ præclaros viros solitos ita dicere quum majorum imagines intuerentur, vehementissume sibi animum ad virtutem accendi.

### TERENCE.—ADELPHI.

D E. Eccum adest
Communis corruptela nostrum liberum.
M I. Tandem reprime iracundiam, atque ad te redi.
D E. Repressi, redii, mitto maledicta omnia:
Rem ipsam putemus: dictum inter nos hoc fuit,
Ex te adeo est ortum, ne tu curares meum,
Neve ego tuum? responde. M I. Factum 'st; non nego.
D E. Cur nunc aput te potat? Cur recipis meum?
Cur emis amicam, Micio? Numquid minus
Mihi idem jus æquom 'st esse, quod mecum 'st tibi?
Quando ego tuum non curo, ne cura meum.

### TERENCE.—PHORMIO.

A N. Geta. G E. Hem! A N. Quid egisti? G E. Emunxi argento senes.
A N. Satin 'st id? G E. Nescio, hercle, tantum jussus sum.
A N. Ebo, verbero; aliud mihi respondes ac rogo?
G E. Quid ergo narras? A N. Quid ego narrem? Opera tua
Ad restim mi quidem res redit planissume.
Ut te quidem omnes Di Deæque, superi inferi,
Malis exemplis perdant! Hem! si quid velis,

Huic mandes qui te ad scopulum e tranquillo auferat.
Quid minus utibile fuit quam hoc ulcus tangere,
Aut nominare uxorem? Injecta est spes patri
Posse illam extrudi. Cedo nunc porro, Phormio,
Dotem si accipiet, uxor ducenda est domum,
Quid fiet?

### CICERO.—ORAT. II. IN CATILINAM.

Unum genus est eorum, qui magno in ære alieno, majores etiam possessiones habent, quarum amore adducti dissolvi nullo modo possunt. Horum hominum species est honestissima; sunt enim locupletes: voluntas vero et causa impudentissima. Tu agris, tu ædificiis, tu argento, tu familia, tu rebus omnibus ornatus et copiosus sis: et dubites de possessione detrahere, acquirere ad fidem? Quid enim exspectas? Bellum? Quid? Ergo in vastatione omnium tuas possessiones sacrosanctas futuras putas? An tabulas novas? Errant qui istas a Catilina exspectant. Meo beneficio tabulæ novæ proferentur: verum auctionariæ.

### TACITUS.—AGRICOLA.

Clarorum virorum facta moresque posteris tradere antiquitus usitatum, ne nostris quidem temporibus, quanquam incuriosa suorum, ætas omisit, quotiens magna aliqua ac nobilis virtus vicit ac supergressa est vitium, parvis magnisque civitatibus commune, ignorantiam recti et invidiam. Sed apud priores, ut agere memoratu digna pronum, magisque in aperto erat; ita celeberrimus quisque ingenio ad prodendam virtutis memoriam, sine gratia aut ambitione, bonæ tantum conscientiæ pretio ducebatur. Ac plerique suam ipsi vitam narrare, fiduciam potius morum quam arrogantiam arbitrati sunt: nec id Rutilio et Scauro citra fidem, aut obtrectationi fuit: adeo virtutes iisdem temporibus optime æstimantur, quibus facillime gignuntur.

### TACITUS.—GERMANIA.

Quotiens bella non ineunt, non multum venatibus, plus per otium transigunt, dediti somno ciboque. Fortissimus quisque ac bellicosissimus nihil agens, delegata domus et penatium et agrorum cura feminis senibusque et infirmissimo cuique ex familia, ipsi hebent: mira diversitate naturæ, cum iidem homines sic ament inertiam, et oderint quietem. Mos est civitatibus, ultro ac viritim conferre principibus, vel armentorum vel frugum, quod pro honore acceptum, etiam necessitatibus subvenit. Gaudent præcipue finitimarum gentium donis, quæ non modo a singulis sed publice mittuntur: electi equi, magna arma, phaleræ, torquesque. Jam et pecuniam accipere docuimus.

1. Comment upon the passages which you have translated.

2. Write the following passage with the quantity of each syllable marked:—

Auditis Cæsaris literis, remissa Ædilibus talis cura; luxusque mensæ, a fine Actiaci belli ad ea arma queis Ser. Galba rerum adeptus est, per annos centum profusis sumptibus exerciti, paullatim exolevere. Causas ejus mutationis quærere libet.

3. Enumerate the principal uses of the subjunctive mood.

4. Describe accurately the situation of Abdera, Utica, Antium, Agrigentum, Herculaneum, Formiæ, Patavium, Lugdunum, Ilerda, Genabum.

5. Give a sketch of the Augustan age, and notice particularly the great writers who flourished in it.

6. How was interest reckoned by the Romans?

7. What are the Latin dates corresponding to April 2, August 13, and December 25, respectively?

8. Translate into Latin prose:—

The bowels of the earth yield us treasures of metals and minerals; quarries of stone and coal. The surface of the earth—what variety of delicate fruits, herbs and grains doth it afford to nourish our bodies and cheer our spirits, and please our tastes and remedy our diseases! How many fragrant flowers, most beautiful and goodly in colour and shape, for the comfort of our smell and delight of our eyes!

*20th September*, 1853, 2 *o'clock, p.m.*

## GREEK—*Examiner, Charles Mac Douall, A.M.*

I.—Translate any two of the following passages:

### 1.—ILIAD, II., 370–398.

Η μὰν αὖτ' ἀγορῇ νικᾷς, γέρον, υἷας Ἀχαιῶν.
αἲ γάρ, Ζεῦ τε πάτερ καὶ Ἀθηναίη καὶ Ἄπολλον,
τοιοῦτοι δέκα μοι συμφράδμονες εἶεν Ἀχαιῶν·
τῷ κε τάχ' ἠμύσειε πόλις Πριάμοιο ἄνακτος
χερσὶν ὑφ' ἡμετέρῃσιν ἁλοῦσά τε περθομένη τε.
ἀλλά μοι αἰγίοχος Κρονίδης Ζεὺς ἄλγε' ἔδωκεν,
ὅς με μετ' ἀπρήκτους ἔριδας καὶ νείκεα βάλλει.
καὶ γὰρ ἐγὼν Ἀχιλεύς τε μαχησάμεθ' εἵνεκα κούρης
ἀντιβίοις ἐπέεσσιν, ἐγὼ δ' ἦρχον χαλεπαίνων·
εἰ δέ ποτ' ἔς γε μίαν βουλεύσομεν, οὐκέτ' ἔπειτα
Τρωσὶν ἀνάβλησις κακοῦ ἔσσεται, οὐδ' ἠβαιόν.
νῦν δ' ἔρχεσθ' ἐπὶ δεῖπνον, ἵνα ξυνάγωμεν Ἄρηα.
εὖ μέν τις δόρυ θηξάσθω, εὖ δ' ἀσπίδα θέσθω,
εὖ δέ τις ἵπποισιν δεῖπνον δότω ὠκυπόδεσσιν,
εὖ δέ τις ἅρματος ἀμφὶς ἰδὼν πολέμοιο μεδέσθω,
ὥς κε πανημέριοι στυγερῷ κρινώμεθ' Ἄρηϊ.

οὐ γὰρ παυσωλή γε μετέσσεται, οὐδ' ἠβαιόν,
εἰ μὴ νὺξ ἐλθοῦσα διακρινέει μένος ἀνδρῶν.
ἱδρώσει μέν τευ τελαμὼν ἀμφὶ στήθεσσιν
ἀσπίδος ἀμφιβρότης, περὶ δ' ἔγχεϊ χεῖρα καμεῖται·
ἱδρώσει δέ τευ ἵππος, ἐΰξοον ἅρμα τιταίνων.
ὃν δέ κ' ἐγὼν ἀπάνευθε μάχης ἐθέλοντα νοήσω
μιμνάζειν παρὰ νηυσὶ κορωνίσιν, οὔ οἱ ἔπειτα
ἄρκιον ἐσσεῖται φυγέειν κύνας ἠδ' οἰωνούς.

## 2.—Herodotus, I., 3, 4.

Δευτέρῃ δὲ λέγουσι γενεῇ μετὰ ταῦτα Ἀλέξανδρον τὸν Πριάμου, ἀκηκοότα ταῦτα, ἐθελῆσαί οἱ ἐκ τῆς Ἑλλάδος δι' ἁρπαγῆς γενέσθαι γυναῖκα, ἐπιστάμενον πάντως, ὅτι οὐ δώσει δίκας· οὐδὲ γὰρ ἐκείνους διδόναι. οὕτω δὴ ἁρπάσαντος αὐτοῦ Ἑλένην, τοῖσι Ἕλλησι δόξαι πρῶτον πέμψαντας ἀγγέλους ἀπαιτέειν τε Ἑλένην καὶ δίκας τῆς ἁρπαγῆς αἰτέειν. τοὺς δέ, προϊσχομένων ταῦτα, προφέρειν σφι Μηδείης τὴν ἁρπαγήν, ὡς οὐ δόντες αὐτοὶ δίκας οὐδὲ ἐκδόντες ἀπαιτεόντων, βουλοίατό σφι παρ' ἄλλων δίκας γίνεσθαι. Μέχρι μὲν ὦν τούτου ἁρπαγὰς μούνας εἶναι παρ' ἀλλήλων· τὸ δὲ ἀπὸ τούτου Ἕλληνας δὴ μεγάλως αἰτίους γενέσθαι· προτέρους γὰρ ἄρξαι στρατεύεσθαι ἐς τὴν Ἀσίην, ἢ σφέας ἐς τὴν Εὐρώπην. τὸ μέν νυν ἁρπάζειν γυναῖκας ἀνδρῶν ἀδίκων νομίζειν ἔργον εἶναι, τὸ δὲ ἁρπασθεισέων σπουδὴν ποιήσασθαι τιμωρέειν ἀνοήτων, τὸ δὲ μηδεμίαν ὤρην ἔχειν ἁρπασθεισέων σωφρόνων· δῆλα γὰρ δή, ὅτι, εἰ μὴ αὐταὶ ἐβούλοντο, οὐκ ἂν ἡρπάζοντο. σφέας μὲν δή, τοὺς ἐκ τῆς Ἀσίης, λέγουσι Πέρσαι ἁρπαζομενέων τῶν γυναικῶν λόγον οὐδένα ποιήσασθαι, Ἕλληνας δὲ Λακεδαιμονίης εἵνεκεν γυναικὸς στόλον μέγαν συναγεῖραι, καὶ ἔπειτεν ἐλθόντας ἐς τὴν Ἀσίην τὴν Πριάμου δύναμιν κατελεῖν. ἀπὸ τούτου αἰεὶ ἡγήσασθαι τὸ Ἑλληνικὸν σφίσι εἶναι πολέμιον. τὴν γὰρ Ἀσίην καὶ τὰ ἐνοικέοντα ἔθνεα βάρβαρα οἰκηιεῦνται οἱ Πέρσαι, τὴν δὲ Εὐρώπην καὶ τὸ Ἑλληνικὸν ἥγηνται κεχωρίσθαι.

## 3.—Æschylus' Prometheus Vinctus, 445–471.

Λέξω δέ, μέμψιν οὔτιν' ἀνθρώποις ἔχων,
ἀλλ' ὧν δέδωκ' εὔνοιαν ἐξηγούμενος·
οἳ πρῶτα μὲν βλέποντες ἔβλεπον μάτην,
κλύοντες οὐκ ἤκουον, ἀλλ' ὀνειράτων
ἀλίγκιοι μορφαῖσι τὸν μακρὸν χρόνον
ἔφυρον εἰκῇ πάντα, κοὔτε πλινθυφεῖς
δόμους προσείλους ᾖσαν, οὐ ξυλουργίαν·
κατώρυχες δ' ἔναιον ὥστ' ἀήσυροι
μύρμηκες ἄντρων ἐν μυχοῖς ἀνηλίοις·
ἦν δ' οὐδεν αὐτοῖς οὔτε χείματος τέκμαρ
οὔτ' ἀνθεμώδους ἦρος οὔτε καρπίμου
θέρους βέβαιον, ἀλλ' ἄτερ γνώμης τὸ πᾶν
ἔπρασσον, ἔστε δή σφιν ἀντολὰς ἐγω
ἄστρων ἔδειξα τάς τε δυσκρίτους δύσεις.
καὶ μὴν ἀριθμόν, ἔξοχον σοφισμάτων,
ἐξηῦρον αὐτοῖς, γραμμάτων τε συνθέσεις,
μνήμην θ' ἁπάντων μουσομήτορ' ἐργάτιν.
κἄζευξα πρῶτος ἐν ζυγοῖσι κνώδαλα
ζεύγλαισι δουλεύοντα· σώμασιν θ' ὅπως
θνητοῖς μεγίστων διάδοχοι μοχθημάτων
γένοινθ', ὑφ' ἅρματ' ἤγαγον φιληνίους
ἵππους, ἄγαλμα τῆς ὑπερπλούτου χλιδῆς.
θαλασσόπλαγκτα δ' οὔτις ἄλλος ἀντ' ἐμοῦ
λινόπτερ' ηὗρε ναυτίλων ὀχήματα.
τοιαῦτα μηχανήματ' ἐξευρὼν τάλας
βροτοῖσιν αὐτὸς οὐκ ἔχω σόφισμ' ὅτῳ
τῆς νῦν παρούσης πημονῆς ἀπαλλαγῶ.

## 4.—Euripides' Medea, 1144–1167.

Ἔπειτα μέντοι προὐκαλύψατ' ὄμματα,
λευκὴν τ' ἀπέστρεψ' ἔμπαλιν παρηΐδα,
παίδων μυσαχθεῖσ' εἰσόδους· πόσις δὲ σὸς
ὀργάς τ' ἀφῄρει καὶ χόλον νεάνιδος,
λέγων τάδ'· οὐ μὴ δυσμενὴς ἔσει φίλοις,
παύσει δὲ θυμοῦ, καὶ πάλιν στρέψεις κάρα,
φίλους νομίζουσ', οὕσπερ ἂν πόσις σέθεν·
δέξει δὲ δῶρα, καὶ παραιτήσει πατρὸς
φυγὰς ἀφεῖναι παισὶ τοῖσδ', ἐμὴν χάριν.
ἡ δ', ὡς ἐσεῖδε κόσμον, οὐκ ἠνέσχετο,
ἀλλ' ᾔνεσ' ἀνδρὶ πάντα· καί, πρὶν ἐκ δόμων
μακρὰν ἀπεῖναι πατέρα καὶ παῖδας σέθεν,
λαβοῦσα πέπλους ποικίλους ἠμπίσχετο·
χρυσοῦν τε θεῖσα στέφανον ἀμφὶ βοστρύχοις
λαμπρῷ κατόπτρῳ σχηματίζεται κόμην,
ἄψυχον εἰκὼ προσγελῶσα σώματος.
κἄπειτ' ἀναστᾶσ' ἐκ θρόνων διέρχεται
στέγας, ἁβρὸν βαίνουσα παλλεύκῳ ποδί,
δώροις ὑπερχαίρουσα, πολλὰ πολλάκις
τένοντ' ἐς ὀρθὸν ὄμμασι σκοπουμένη.
τοὐνθένδε μέντοι δεινὸν ἦν θέαμ' ἰδεῖν·
χροιὰν γὰρ ἀλλάξασα λεχρία πάλιν
χωρεῖ τρέμουσα κῶλα, καὶ μόλις φθάνει,
θρόνοισιν ἐμπεσοῦσα, μὴ χαμαὶ πεσεῖν.

## 5.—Xenophon's Anabasis, II., 5, §§ 3–7.

Ἐγώ, ὦ Τισσαφέρνη, οἶδα μὲν ἡμῖν ὅρκους γεγενημένους καὶ δεξιὰς δεδομένας, μὴ ἀδικήσειν ἀλλήλους· φυλαττόμενον δὲ σε ὁρῶ ὡς πολεμίους ἡμᾶς, καὶ ἡμεῖς ὁρῶντες ταῦτα ἀντιφυλαττόμεθα. ἐπεὶ δὲ σκοπῶν οὐδὲν δύναμαι οὔτε σὲ αἰσθέσθαι πειρώμενον ἡμᾶς κακῶς ποιεῖν, ἐγώ τε σαφῶς οἶδα ὅτι ἡμεῖς γε οὐδ' ἐπινοοῦμεν τοιοῦτον οὐδέν, ἔδοξέ μοι εἰς λόγους σοι ἐλθεῖν, ὅπως, εἰ δυναίμεθα, ἐξέλοιμεν ἀλλήλων τὴν ἀπιστίαν. καὶ γὰρ οἶδα ἤδη ἀνθρώπους, τοὺς μὲν ἐκ διαβολῆς, τοὺς δὲ καὶ ἐξ ὑποψίας, οἳ φοβηθέντες ἀλλήλους, φθάσαι βουλόμενοι πρὶν παθεῖν, ἐποίησαν ἀνήκεστα κακὰ τοὺς οὔτε μέλλοντας οὔτε βουλομένους τοιοῦτον οὐδέν. τὰς οὖν τοιαύτας ἀγνωμοσύνας νομίζων συνουσίαις μάλιστα ἂν παύεσθαι ἥκω, καὶ διδάσκειν σε βούλομαι ὡς σὺ ἡμῖν οὐκ ὀρθῶς ἀπιστεῖς. πρῶτον μὲν γὰρ καὶ μέγιστον οἱ θεῶν ὅρκοι ἡμᾶς κωλύουσι πολεμίους εἶναι ἀλλήλοις· ὅστις δὲ τούτων σύνοιδεν αὑτῷ παρημεληκώς, τοῦτον ἐγὼ οὔποτ' ἂν εὐδαιμονίσαιμι. τὸν γὰρ θεῶν πόλεμον οὐκ οἶδα οὔτ' ἀπὸ ποίου ἂν τάχους φεύγων τις ἀποφύγοι, οὔτ' εἰς ποῖον ἂν σκότος ἀποδραίη, οὔθ' ὅπως ἂν εἰς ἐχυρὸν χωρίον ἀποσταίη. πάντῃ γὰρ πάντα τοῖς θεοῖς ὕποχα, καὶ πανταχῇ πάντων ἴσον οἱ θεοὶ κρατοῦσι. περὶ μὲν δὴ τῶν θεῶν τε καὶ τῶν ὅρκων οὕτω γιγνώσκω, παρ' οἷς ἡμεῖς τὴν φιλίαν συνθέμενοι κατεθέμεθα· τῶν δ' ἀνθρωπίνων σὲ ἔγωγε ἐν τῷ παρόντι νομίζω μέγιστον ἡμῖν εἶναι ἀγαθόν.

## 6.—Lucian's Charon.

ΧΑΡ. Καί μοι δοκῶ ἐς δέον ἐντετυχηκέναι σοι· ξεναγήσεις γὰρ εὖ οἶδ' ὅτι με ξυμπερινοστῶν, καὶ δείξεις ἕκαστα ὡς ἂν εἰδὼς ἅπαντα.

ΕΡΜ. Οὐ σχολή μοι, ὦ πορθμεῦ· ἀπέρχομαι γάρ τι διακονησόμενος τῷ ἄνω Διὶ τῶν ἀνθρωπικῶν· ὁ δὲ ὀξύθυμός

ἐστι, καὶ δέδια μὴ βραδύναντά με ὅλον ὑμέτερον ἐάσῃ εἶναι παραδοὺς τῷ ζόφῳ, ἤ, ὅπερ τὸν Ἥφαιστον πρῴην ἐποίησε, ῥίψῃ κἀμὲ τεταγὼν τοῦ ποδὸς ἀπὸ τοῦ θεσπεσίου βηλοῦ, ὡς ὑποσκάζων γέλωτα καὶ αὐτὸς παρέχοιμι οἰνοχοῶν.

ΧΑΡ. Περιόψει οὖν με ἄλλως πλανώμενον ὑπὲρ γῆς, καὶ ταῦτα ἑταῖρος καὶ σύμπλους καὶ συνδιάκτορος ὤν; καὶ μὴν καλῶς εἶχεν, ὦ Μαίας παῖ, ἐκείνων γοῦν σε μεμνῆσθαι, ὅτι μηδεπώποτέ σε ἢ ἀντλεῖν ἐκέλευσα ἢ πρόςκωπον εἶναι· ἀλλὰ σὺ μὲν ῥέγκεις ἐπὶ τοῦ καταστρώματος ἐκταθείς, ὤμους οὕτω καρτεροὺς ἔχων, ἤ, εἴ τινα λάλον νεκρὸν εὕροις, ἐκείνῳ παρ' ὅλον τὸν πλοῦν διαλέγῃ· ἐγὼ δέ, πρεσβύτης ὤν, τὴν δικωπίαν ἕλκων ἐρέττω μόνος. ἀλλά, πρὸς τοῦ πατρός, ὦ φίλτατον Ἑρμάδιον, μή καταλίπῃς με. περιήγησαι δέ τὰ ἐν τῷ βίῳ ἅπαντα, ὥς τι καὶ ἰδὼν ἐπανέλθοιμι· ὡς ἤν με σὺ ἀφῇς, οὐδὲν τῶν τυφλῶν διοίσω· καθάπερ γὰρ ἐκεῖνοι σφάλλονται διολισθαίνοντες ἐν τῷ σκότει, οὕτω δὴ κἀγώ σοι ἔμπαλιν ἀμβλυώττων πρὸς τὸ φῶς. ἀλλὰ δός, ὦ Κυλλήνιε, ἐς ἀεὶ μεμνησομένῳ τὴν χάριν.

ΕΡΜ. Τοῦτο τὸ πρᾶγμα πληγῶν αἴτιον καταστήσεταί μοι· ὁρῶ γοῦν ἤδη τὸν μισθὸν τῆς περιηγήσεως οὐκ ἀκόνδυλον παντάπασιν ἡμῖν ἐσόμενον. ὑπουργητέον δὲ ὅμως· τί γὰρ ἂν καὶ πάθοι τις, ὁπότε φίλος τις ὢν βιάζοιτο;

II.—1. Mention the Dialects—and also, in regard to the Attic, its chronological stages—which are exemplified in the preceding extracts.

2. (*a*) State the fundamental Laws of Homeric Verse. (*b*) Specify which of the Homeric lines printed above have a spondee in the fifth place,—which have the third foot commencing with the first syllable of a word,—and which have the third foot commencing with a trochee formed by the two last syllables of a word.

3. (*a*) State the fundamental Laws of Iambic Trimeter observed in Tragedy. (*b*) Point ont the metrical faults introduced into the following lines:

πατέρα μακρὰν ἀπεῖναι καὶ παῖδας σίθεν,
λαβοῦσα ποικιλους πέπλους ἠμπίσχετο,
χρυσοῦν τε θεῖσα στέφανον ἀμφὶς βοστρύχοις,
κατόπτρῳ λαμπρῷ προςγελῶσα σωματος.

4. Write down the future, the perfect, and the aorist (active), of each of the following verbs, when you know or believe them to be actually used in Attic Greek, and the synonymes from other verbal roots which are substituted for such forms as are not so used:

ἄγω, λέγω, τίκτω, ἔχω, τρέχω, ἔρχομαι, δείδω, ἔρδω, πλάζω, πέρθω, ἵπταμαι, τρίβω, λείπω, τρέπω, τρέφω, στέλλω, πίνω, βαίνω, φαίνω, ἐλαύνω, κάμνω, τυγχάνω, ἀνδάνω, ἐγείρω, αἱρέω, ἐσθίω, δράω, ἀκούω, καίω, εὑρίσκω, θνήσκω, γιγνώσκω, ὄμνυμι, ὄλλυμι, πίμπλημι, δίδωμι.

Over every doubtful vowel mark its quantity.

*21st September*, 1853, 9 *o'clock, a.m.*

### GERMAN—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

I.

Translate into German:—

Lorenzo dei Medici was about sixteen years of age when Cosmo died, and had at that time given striking indications of extraordinary talents. From his earliest years he had exhibited proofs of a retentive and vigorous mind, which was cultivated, not only by all the attention which his father's infirmities would permit him to bestow, but by a frequent intercourse with his venerable grandfather.

WM. ROSCOE—*Life of Lorenzo dei Medici.*

II.

Translate into English :—

Der Pariſer Friede, wodurch Canada an England kam, befreite die alt engliſchen Colonien von der gefährlichen Nachbarſchaft der franzöſiſchen Pflanzer. Von nun an bedurften ſie des brittiſchen Schutzes minder. Ihr Selbſtgefühl, ſo wie ihre Kraft, ſtieg ſeitdem zuſehends; und ſie trugen jetzt minder geduldig als zuvor die Handelsbeſchränkungen, welche das Mutterland ihnen auflegte. Der Schleichhandel ward daher mit ſteigender Kühnheit getrieben, welches die Engländer zu harten Zwangsmaßregeln bewog.

ROTTECK—*Weltgeschichte.*

III.

Wenn ihr in der Menſchheit traur'ger Blöße
Steht vor des Geſetzes Größe,
Wenn dem Heiligen die Schuld ſich naht,
Da erblaße vor der Wahrheit Strahle
Eure Tugend, vor dem Ideale,
Fliehe muthlos die beſchämte That.
Kein Erſchaffner hat dieß Ziel erflogen;
Ueber dieſen grauenvollen Schlund
Trägt kein Nachen, keiner Brücke Bogen,
Und kein Anker findet Grund.

SCHILLER—*Das Ideal und das Leben.*

*21st September*, 1853, 9 *o'clock, a.m.*

### FRENCH—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

I.

Traduisez en Français :

The rude American tribes were divided into small independent communities. While hunting is the chief source of subsistence, a vast extent of territory is requisite for supporting a small number of people. In proportion as men multiply and unite, the wild animals, on which they depend for food, diminish or fly at a greater distance from the haunts of their enemy. The increase of a society in this state is limited by its own nature, and the members of it must either disperse, like the game which they pursue, or fall upon some better method of procuring food than by hunting.

ROBERTSON—*History of America.*

II.

Traduisez en Anglais :

Les habitants du Caucase, quoique individuellement très-courageux, sont incapables d'attaquer en masse, et sont par conséquent peu dangereux pour une troupe qui fait bonne contenance; mais ils ont de bonnes armes, et tirent fort juste. Leur grand nombre dans cette occasion, rendait le combat trop inégal. Après une assez longue fusillade, plus de la moitié des Cosaques furent tués ou mis hors de combat; le reste s'était fait avec les chevaux morts un rempart circulaire derrière lequel ils tirèrent leurs dernières cartouches.

X. De Maistre—*les Prisonniers du Caucase.*

### III.

L'idée du juste est une des gloires de la nature humaine. L'homme l'aperçoit d'abord, mais il ne l'aperçoit que comme un éclair dans la nuit profonde des passions primitives; il la voit sans cesse violée, et à tout moment effacée par le désordre nécessaire des passions et des intérêts contraires. Ce qu'il a plu d'appeler la société naturelle, n'est qu'un état de guerre, où règne le droit du plus fort, et où l'idée de la justice n'intervient guère que pour être foulée aux pieds par la passion. Mais enfin cette idée frappe aussi l'esprit de l'homme.

V. Cousin—*Cours de Philosophie.*

21*st September*, 1853, 9 *o'clock, a.m.*

## Italian—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

### I.

Translate into Italian:

To desire or even to accept of praise, where no praise is due, can be the effect only of the most contemptible vanity. To desire it where it is really due, is to desire no more than that a most essential act of justice should be done to us. The love of just fame, of true glory, even for its own sake, and independent of any advantage which he can derive from it, is not unworthy even of a wise man.

A. Smith—*Moral Sentiments.*

### II.

Translate into English:

I Corsi, dati piuttosto alla vita selvaggia che alla civile, furono primieramente, per quanto si estendono le storie, signoreggiati dai Romani. I vincitori del mondo videro della Corsica poco più che i lidi: della parte aspra, selvaggia e montagnosa dell' interno, poco si curarono. Era per essi l' isola piuttosto posto militare per frenare corsari e Cartaginesi che parte dello stato, cui avanzare in civiltà volessero. Tributi, e questi ancora conformi alla natura delle terre e degli abitatori, ne cavavano.

Carlo Botta—*Storia d'Italia.*

### III.

*Fabioni.*—Tribonio, signora, è in arresto. Egli ha confessato al presidente che a lui erano state mandate da Vienna le carte e i denari, onde far riconoscere la Contessa Amalia Alvisi come padrona di questa casa; ma che accecato dall' avidità d' un doppio lucro ritenne ogni cosa, e lasciò progredir la causa sin qui tra il mio cliente e la signora Contessa Gertrude.

Nota—*I litiganti.*

21*st September*, 1853, 2 *o'clock, p.m.*

## Special Group, B:—

## English Philology and Criticism—*Examiner, George L. Craik, A.M.*

1. Explain the position and connexions of the present English language in the Indo-European system of languages, taking account of both its great constituent elements.

2. Describe the extent to which the original Gothic substance of our language has been intermixed with the Latin or Romance element.

3. Describe the nature of the changes in its grammatical structure and general organization which the English language has undergone in its conversion from what is called Anglo-Saxon into its existing state.

4. State how the successive stages of our language, from the Anglo-Saxon inclusive, are distinguished and characterized by the vowel-endings of nouns and verbs.

5. State how the *e* final appears to have been circumstanced in the written and spoken English of the age of Chaucer; noticing the explanation which has been given of it in such phrases as "with his shoures *sote*," "perced to the *rote*," "hire gretest *othe*," "a cloth of gold that *brighte* shone."

6. When was the use of the French language discontinued in England as the medium through which youth were taught Latin in the Grammar schools? By whom is the innovation said to have been introduced? and by whom are the facts recorded? How and when, also, was the French language abolished in the conducting of trials in the higher courts of law? And what is the date of the earliest of our statutes, or acts of parliament, that is in English?

7. Deduce the meanings of the following words from their etymologies:—*Alms, Bishop, Monk, Minster, Hermit, Surgeon, College, University, Matriculate, Initial, Journal, Patience, Passion, Expedition, Miscreant, Ecstasy, Hypocrisy, Misogynist, Pretend, Prevent, Fade, Doubt, Frail, Deck, Kind.*

8. Discriminate the meanings, or legitimate applications, of the following words:—*Acute* and *Sharp*; *Eager* and *Keen*; *Great* and *Large*; *Language, Tongue,* and *Speech*; *Mortal, Deadly,* and *Death-like*; *Grave, Weighty, Heavy,* and *Cumbrous*; *Wicked, Sinful, Criminal, Depraved,* and *Guilty.*

9. Enumerate the principal classes of English words, according to termination, that are of Latin origin.

10. Enumerate, in the order of time, the principal English poetical writers, or works, between the Norman Conquest and Chaucer.

11. Translate into our modern English the following lines from the Dedication of the *Ormulum* by the author to his brother; state the nature of the work, and the time at which it may be supposed to have been written; and explain the principle of the orthography adopted in it, and point out the words or syllables in the extract, if any, which would thence seem to have had the medial vowel sounded differently then from what it now is:—

> "Icc hafe wennd inntill Ennglissh Goddspelless hallghe láre,
> Affterr thatt little witt tatt me Min Drihhtin hafethth lenedd.
> Thu thohhtesst tatt itt mihhte wel Till mikell frame* turrnenn,
> Giff Ennglissh follk, forr lufe off Crist, Itt wollde gerne† lernenn,
> Annd follghenn itt, annd fillenn itt, Withth thohht, withth word, withth dede."

* Profit. † Earnestly.

12. Construe and explain the following passages:—

> "Best state, contentless,
> Hath a distracted and most wretched being,
> Worse than the worst, content."—*Shakespeare.*
>
> "I to bear this,
> That never knew but better, is some burden."—*Id.*
>
> "Let's mock them still, as well known as disguised."—*Id.*
>
> "More is thy due than more than all can pay."—*Id.*
>
> "The rest is labour, which is not used for you."—*Id.*
>
> "Who is it, that says most, which can say more
> Than this rich praise, that you alone are you?"—*Id.*
>
> "Music to hear,* why hear'st thou music sadly?"—*Id.*

* Compare: "How oft, when thou, my music, music play'st."—*Id.*

> "For there is nothing lost, that may be found if sought."—*Spenser.*
>
> "I give not heaven for lost."—*Milton.*
>
> "Happy, but, for so happy, ill secured
> Long to continue."—*Id.*

*22nd September*, 1853; 9 *o'clock, a.m.*

### MATHEMATICS—*Examiner, John Mulcahy, LL.D.*

1. If £540 at simple interest amount to £734 8*s.* in nine years, find the rate per cent.
2. Divide 325 by 8·7, and carry the quotient to five decimal places.
3. Divide $\frac{5}{11}$ by $\frac{4}{5}$, and explain the reason of the process.
4. A and B perform a piece of work in three days. A alone can perform it in four days. How many days would B require?
5. Find the numerical values of $a^0$ and $4^{-\frac{3}{2}}$.
6. Simplify the fraction $\frac{x^3 - y^3}{x^2 - 2xy + y^2}$
7. Explain the method of finding a fourth proportional to three given numbers by means of a table of logarithms.
8. Solve the equation—

$$\frac{x}{8} - \frac{2x-2}{5} = \frac{3x-4}{15} + \frac{x}{12}$$

9. Solve the simultaneous equations—

$$x - 3y = 2, \text{ and } x^2 + y^2 = 26.$$

10. Find the difference between $\sqrt[3]{108}$ and $\sqrt[3]{\frac{1}{2}}$.
11. In any triangle the square of a side opposite to an acute angle is less than the sum of the squares of the sides containing the acute angle, by what quantity?
12. Two opposite angles of a quadrilateral figure inscribed in a circle are together equal to two right angles; required the proof.
13. If through any point within a circle two chords be drawn, the rectangle under the segments of one is equal to the rectangle under those of the other.
14. If two triangles have two sides in one, proportional to two sides in the other, and the contained angles equal, the triangles are similar.
15. If similar and similarly posited figures be described on the three sides of a right-angled triangle, that on the hypotenuse equals the sum of the other two.
16. If $s$ be the sine of an angle, prove that the tangent of the angle is equal to $\frac{s}{\sqrt{1-s^2}}$.
17. Find the expression for the cosine of the sum of two angles, in terms of the sine and cosines of the angles.
18. Given the three sides of a triangle, show how the angles can be found trigonometrically.

*22nd September*, 1853, 2 *o'clock, p.m.*

### Metaphysics—*Examiner, Rev. William Fitzgerald, D.D.*

1. What are the chief modern improvements upon the old Epicurean "selfish system?"
2. Enumerate the chief faults which Cousin finds with Locke's Essay?
3. What are the tests assigned by Kant of an intuition a priori?
4. In what respects does Kant's doctrine differ from Berkeley's?
5. What was the distinction between the academics and the sceptics?
6. How are the conceptualists distinguished from the nominalists and the realists?
7. What is the reason that day and night, though following each other in invariable sequence, are never regarded under the aspect of cause and effect?
8. State various meanings of the word "cause."
9. In what did Locke suppose personal identity to consist, and what was the source of his mistake?

*22nd September*, 1853, 2 *o'clock, p.m.*

### Logic—*Examiner, Rev. William Fitzgerald, D.D.*

1. Bacon enumerates four prejudices of Divines, which, up to his time, had obstructed improvements in physical science. State them, and give the substance of his remarks upon them.
2. What reasons does Bacon assign why the "anticipationes naturæ" are commonly more willingly acquiesced in than the "interpretationes naturæ?"
3. What are the errors most commonly committed in reasoning from analogy?
4. What are the chief ways in which words become equivocal? Give instances.
5. How far should definitions be exacted?
6. If the probability of one premise be $\frac{6}{10}$, and of the other $\frac{7}{10}$, what will that of the conclusion be?
7. Explain and illustrate Mr. Mill's "method of concomitant variations."
8. Why is a single instance, in some cases, sufficient for a complete induction; while, in others, myriads of concurring instances, without a single exception, known or presumed, go but a little way towards establishing an universal proposition?

*23rd September*, 1853, 9 *o'clock, a.m.*

### Chemistry—*Examiner, Edmund Ronalds, Ph. D.*

1. For what reasons is the expansion of mercury peculiarly adapted to the measurement of ordinary atmospheric temperatures?
2. What is understood by the specific heat of a substance; and what relation has been shown to exist between the specific heats and equivalent weights of bodies of similar chemical constitution?
3. What volume will 100 cubic inches of gas, at 50° Fahrenheit occupy, if the temperature be raised to 70° Fahrenheit, the pressure remaining unaltered?
4. In what proportions, by volume, do oxygen and nitrogen unite, to form the protoxide and deutoxide of nitrogen respectively; and what relation do the volumes of the compound gases produced bear to the volumes of their constituents?
5. What is the general law of isomorphism, as established by Mitscherlich?
6. Why should more intense heat be generated when carbon is burned in oxygen gas, than when the combustion occurs in atmospheric air?
7. Describe the process for obtaining sulphurous acid, and illustrate the chemical reaction by means of symbols.
8. How is the element chlorine obtained, and for what purpose is it chiefly employed in the arts?
9. Define the terms salt radical and salt basyle, and show, by symbols, the action of the former class of bodies upon a solution of caustic potash.
10. What is the usual cause of the explosions which frequently occur in coal mines, and what principle is applied in the construction of the safety lamp employed by the colliers?
11. How is sulphuretted hydrogen prepared, and what purpose does it serve in the laboratory?
12. What are the products of the reaction which ensues when pounded glass and fluor spar are heated with oil of vitriol; and show, by means of symbols, the nature of the decomposition that occurs when the gaseous product from the previous reaction is carried through water?
13. What is the cause of the incrustation of steam boilers, and how may it often be obviated?
14. What process is now universally adopted for the manufacture of carbonate of soda; and what is the difference, in composition, between soda ash and crystallized carbonate of soda?
15. What is the essential difference, in composition, between crown and flint glass?
16. Describe the process for obtaining cast iron in the blast furnace, stating the composition of the ores and of the flux, with the theory of reduction, the chemical constitution of the products, and the object aimed at in the subsequent process of puddling.
17. What common cause is adduced by Liebig, to explain the quick-vinegar-process, and that of nitrification?

18. When dilute acids are heated with a solution of starch, what gradual changes are observed in the nature of the product; and how may the ultimate absence of starch in the liquid be ascertained?

19. Alcohol is generally represented as the hydrate of ether. What objections may be raised to this view of its constitution?

20. What are the respective compositions of the yellow and red prussiates of potash; and how, by their means, are we enabled to distinguish the salts of the two oxides of iron from each other?

*23rd September, 1853, 2 o'clock, p.m.*

### NATURAL PHILOSOPHY.—*Examiner, George F. Shaw, F.T.C.D.*

1. A lever 4 feet long is attached at one end by a hinge to a fulcrum, and supported at the other by the finger. Five weights, of 1 lb. each, are hung from the lever at the distances of 6, 14, 20, 31, and 44 inches respectively from the fulcrum. Find the pressure on the finger.

2. A pressure of 27 lbs. makes with another pressure, unknown in magnitude, an angle of which the sine is ·473. They compound a resultant equal to 42 lbs. Find the magnitude of the unknown pressure, and the sine of the angle it makes with the resultant.

3. Find the velocity acquired by a railway train in running down a gradient of 2,164 feet, having a total fall of 26 feet, the force of gravity being 32·19, and the resistance of the air and friction being 9 lbs. per ton.

4. The pressure of a fluid on an immersed body is, at each point, proportional to the depth of immersion. By what simple apparatus is this law directly proved?

5. A gas contained in a vessel of 1,000 cubic inches, and kept at 100° C, sustains a pressure of 11 inches of mercury. How many inches will it sustain when compressed into a vessel of 450 inches, and raised to the temperature 120°?

NOTE—Assume the gas's coefficient of expansion at ·00376.

6. Describe some experiments by which the latent heat (*a*) of water, and (*b*) of steam, can be measured, and state the result in each case.

7. Describe the mechanism (*a*) of the *reversing rod* in a locomotive, and (*b*) of the *air-pump* in a condenser, stating how any imperfection in the valves of the latter would affect the working of the engine.

8. I move the pole of a magnet to and fro beneath a card on which iron filings are strewn. State and explain the motion exhibited by the filings.

9. Explain the terms, free electricity, and latent electricity. Illustrate the latter (*électricité dissimulée*) by certain experiments and apparatus which involve it.

10. One kind of electric telegraph is founded on an effect of electric currents on the magnetic needle; another kind on an effect of the same currents on soft iron. Give some account of the mechanism in each case.

11. A small bright object advances from a great distance towards a concave spherical reflector. How does the image move?

12. (*a*) Look through a tumbler of water into the street. The movements of the passers by are reversed in direction. Explain this phenomenon.
    (*b*) Turn your back on the window and look again into the tumbler. You may see with each eye a *coloured* image of the window. Account for this.
    (*c*) Place a lighted candle on the table, and holding the tumbler above the level both of the eye and of the candle, look up at the surface of the water. A *bright* image of the flame is seen floating there. How is this formed?

13. The earth's figure being supposed spherical, how does astronomy determine its magnitude?

14. Knowing this magnitude, we can, by certain observations at different places on the earth, determine the magnitude of the sun and of the planets.

15. The distance of the sun is inferred from the solar parallax, and this from observations of the transits of Venus. State the principal steps of the latter process.

16. The distance of the earth from the sun being known, that of all the other planets is ascertained by further observations.

17. How do the stationary and retrograde appearances of the planets depend on the relative position of the planet, the sun, and the earth?

18. The earth's rotation diminishes the weight of bodies at its surface, and also tends to give them a motion toward the equator. Calculate the amount of each of these forces at the latitude of Dublin.

NOTE.—Sin. lat. = ·8023. Cos. lat. = ·5969.

*24th September, 1853, 9 o'clock, a.m.*

### ZOOLOGY.—*Examiner, George Dickie, M.D.*

1. State the general characters of the teeth of Carnivora and Rodentia in reference to form, structure, and number, and mention examples.

2. Institute a general comparison between the wings of Cheiroptera and Aves, in reference both to skeleton and soft parts.

3. State the chief peculiarities in the organization of fishes, having reference to their habits.

4. Institute a comparison between the Insecta and Arachnida in reference both to external and internal characters, comprehending organs concerned in locomotion, respiration, vision, &c.

5. Why are certain animals called Diptera, Coleoptera, Cephalopoda, and Pteropoda? State their general characters and their positions in the system of classification, and mention the derivations of the names.

6. Why are certain animals called Acalephæ? Give the derivation of the term, refer them to their position in the system of classification, and describe their modes of locomotion.

### BOTANY.

1. Describe those forms of tissue called tracheæ, annular vessels and scalariform vessels.

2. State the difference between simple and compound leaves, and mention examples; explain also the terms, *abruptly pinnate*, *unequally pinnate*, and *interruptedly pinnate*.

3. State the true nature of spines and tendrils, give reasons for the opinions entertained, and mention examples.

4. State the position, arrangement, and true nature of the following organs—the partial and general involucres of Umbelliferæ, the involucre of Compositæ, and the cup of the acorn.

5. Describe the parts of the ovule; state also their order of development and their functions.

6. Refer the following orders to their classes in the natural system of classification—Orchideæ, Labiatæ, Ranunculaceæ, Fungi, Liliaceæ, Coniferæ, and Musci.

*24th September*, 1853, 2 *o'clock, p.m.*

### PHYSICAL GEOGRAPHY—*Examiner, Frederick M'Coy, F.G.S.L., Hon. F.C.P.S.*

1. In the case of earthquakes occurring near the sea shore, describe in the order in which they are perceived, the earth sound-wave, the shock, the air sound-wave, the forced sea-wave, and the great sea-wave, explaining the causes producing, and influencing the velocity of each.

2. Explain the circumstances connected with temperature and surface configuration, under which glaciers will form, and give the classification of moraines, and mode of formation of each kind.

3. Explain and illustrate by figures the most ordinary causes of land-slips.

4. If the west coasts of Continental Europe, as far as the Ural Mountains, were submerged beneath the sea, and the east shores of North America, to the Rocky Mountains, also submerged, what would be the effect on the temperature of the British Islands, and what would be the course of the Gulf Stream? What indications are there of this submersion having taken place?

5. Why have not the British Islands the temperature of the Island of S. Georgia?

6. Give, in brief general terms, the course of the tide-wave, from its origin in the Antarctic to London.

7. State the cause and nature of monsoons in the Indian Ocean, and their direction, from April to September, north and south of the equator.

8. What part of the atmosphere has the greatest temperature in any given district? At moderate elevations, what number of feet of elevation corresponds to 1° of temperature by Fahrenheit's thermometer?

9. At what height is the density of the air about half that at the surface or sea level? At what height is the density of the air supposed to be almost insensible?

*26th September*, 1853, 9 *o'clock, a.m.*

### JURISPRUDENCE—*Examiner, Professor Heron.*

1. Define Jurisprudence.

2. Explain and illustrate, by examples, the different senses in which the term Jurisprudence has been used.

3. Define Common and Statute law.

4. What is the technical meaning of Equity in the law of England?

5. What is the proper end of punishment?

6. Define International Law.

7. Two great schools of jurisprudence have existed in modern times.

8. Show the imperfection in the theory of the Utilitarian School of Philosophy.

9. From what principal cause has so much confusion of thought and expression arisen amongst modern jurists?

10. How did Grotius define Natural Law; and what is the error in his definition?

11. What human duties alone come within the cognizance of justice?

12. Explain the terms *justitia attributrix* and *justitia expletrix*.

13. What is the distinction between Ethics and Jurisprudence? They coincide in their general ultimate end.

14. Show that utility, as a principle, is not peculiar to Jurisprudence.

15. What is the proper province of coercive law?

16. Explain the terms *jus gentium, jus naturæ, jus feciale*.

17. Mr. Reddie briefly characterizes the advantages of method in the study of law.

18. What was the methodical arrangement of the component parts of private law by Gaius?

19. In what codes, and by what great authors, has the arrangement in the Institutes of Justinian been followed in modern times?
20. What are the objects of law?
21. Define a contract and a promise.
22. Define an action at law.
23. Name the principal jurists—
    (*a*) Of the seventeenth century.
    (*b*) Of the eighteenth century.
24. What was the primary object of the great work of Grotius?

*26th September*, 1853, 9 *o'clock, a.m.*

### POLITICAL ECONOMY.—*Examiner, Professor Heron.*

1. Define Political Economy.
2. What are the three constituents of wealth?
3. What are the chief sources of the influence which limitation in supply has on value?
4. Define the terms *value*, *demand*, and *supply*.
5. Upon what does steadiness in value depend?
6. Mr. Senior states four elementary propositions of the science of Political Economy.
7. What are the three instruments of production?
8. Define production.
9. How is production divided by Mr. Senior?
10. Define consumption.
11. How is consumption divided by Mr. Senior?
12. Define abstinence.
13. Define capital and labour.
14. What are the advantages derived from the use of capital?
15. Society is divided into three great classes, each class having a different *instrument*, a different *conduct*, and a different *remuneration*. What are the three classes? State the nomenclature applicable in each of the classes severally to the above terms.
16. How is the cost of production defined by Mr. Senior?
17. Monopolies may be divided into four kinds.
18. Increased demand has different effects on the price of manufactured and of raw produce.
19. Increased taxation has different effects upon the price of manufactured and of raw produce.
20. Define rent.
21. The terms high and low wages have been used in three different senses.
22. What is the difference between the amount of wages and the price of labour?
23. What proximate cause determines the rate of wages?
24. Define profit.

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## EXAMINATION OF CANDIDATES PASSED FOR DEGREE OF A.B.

*27th September*, 1853.

### GREEK.—*Examiner, Charles Mac Douall, A.M.*

I.—1. Translate the following extract from HERODOTUS, I, cc. 90, 91:

Ὡς δὲ ταῦτα ἤκουσε ὁ Κροῖσος, πέμπων τῶν Λυδῶν ἐς Δελφοὺς ἐνετέλλετο τιθέντας τὰς πεδας ἐπὶ τοῦ νηοῦ τὸν οὐδὸν εἰρωτᾶν, εἰ οὔ τι ἐπαισχύνεται τοῖσι μαντηΐοισι ἐπαείρας Κροῖσον στρατεύεσθαι ἐπὶ Πέρσας ὡς καταπαύσοντα τὴν Κύρου δύναμιν, ἀπ᾽ ἧς οἱ ἀκροθίνια τοιαῦτα γενέσθαι, δεικνύντας τὰς πέδας· ταῦτά τε ἐπειρωτᾶν, καὶ εἰ ἀχαρίστοισι νόμος εἶναι τοῖσι Ἑλληνικοῖσι θεοῖσι. ἀπικομένοισι δὲ τοῖσι Λυδοῖσι καὶ λέγουσι τὰ ἐντεταλμένα τὴν Πυθίην λέγεται εἰπεῖν τάδε· Τὴν πεπρωμένην μοῖραν ἀδύνατά ἐστι ἀποφυγέειν καὶ θεῷ. Κροῖσος δὲ πέμπτου γονέος ἁμαρτάδα ἐξέπλησε, ὅς, ἐὼν δορυφόρος Ἡρακλειδέων, δόλῳ γυναικηΐῳ ἐπισπόμενος ἐφόνευσε τὸν δεσπότεα καὶ ἔσχε τὴν ἐκείνου τιμὴν οὐδέν οἱ προσήκουσαν. προθυμεομένου δὲ Λοξίεω, ὅκως ἂν κατὰ τοὺς παῖδας τοὺς Κροίσου γένοιτο τὸ Σαρδίων πάθος καὶ μὴ κατ᾽ αὐτὸν Κροῖσον, οὐκ οἷός τε ἐγένετο παραγαγεῖν μοίρας. ὅσον δὲ ἐνέδωκαν αὗται, ἤνυσέ τε καὶ ἐχαρίσατό οἱ· τρία γὰρ ἔτεα ἐπανεβάλετο τὴν Σαρδίων ἅλωσιν· καὶ τοῦτο ἐπιστάσθω Κροῖσος ὡς ὕστερον τοῖσι ἔτεσι τούτοισι ἁλοὺς τῆς πεπρωμένης. δεύτερα δὲ τούτων καιομένῳ αὐτῷ ἐπήρκεσε. κατὰ δὲ τὸ μαντήϊον τὸ γενόμενον οὐκ ὀρθῶς Κροῖσος μέμφεται· προηγόρευε γάρ οἱ Λοξίης, ἢν στρατεύηται ἐπὶ Πέρσας, μεγάλην ἀρχὴν αὐτὸν καταλύσειν. τὸν δὲ πρὸς ταῦτα χρῆν, εὖ μέλλοντα βουλεύεσθαι, ἐπείρεσθαι πέμψαντα, κότερα τὴν ἑωυτοῦ ἢ τὴν Κύρου λέγοι ἀρχήν. οὐ συλλαβὼν δὲ τὸ ῥηθὲν οὐδ᾽ ἐπανειρόμενος ἑωυτὸν αἴτιον ἀποφαινέτω.

2. Write out the whole passage in the Attic dialect and in the style of Xenophon; altering not merely Ionic forms, but cases of nouns, tenses and modes of verbs, and even the structure of entire clauses wherever such treatment of the text may be demanded by Attic idiom.

3. State the leading characteristics of an *oratio obliqua*, or reported speech, in Greek; exemplifying your remarks from the passage printed above, and comparing the requirements of Latin usage.

4. (*a*) Quote or construct, in both Greek and Latin, a hexameter embodying the oracle alluded to in the extract. (*b*) Mention the import of a Delphic response previously issued to Crœsus, and also that of one which he received on consulting the shrine a third time.

II.—1. Translate Thucydides, I, 141:

„Αὐτόθεν δὴ διανοήθητε ἢ ὑπακούειν πρίν τι βλαβῆναι, ἢ εἰ πολεμήσομεν, ὡς ἔμοιγε ἄμεινον δοκεῖ εἶναι, καὶ ἐπὶ μεγάλῃ καὶ ἐπὶ βραχείᾳ ὁμοίως προφάσει μὴ εἴξοντες μηδὲ ξὺν φόβῳ ἕξοντες ἃ κεκτήμεθα. τὴν γὰρ αὐτὴν δύναται δούλωσιν ἥ τε μεγίστη καὶ ἡ ἐλαχίστη δικαίωσις ἀπὸ τῶν ὁμοίων πρὸ δίκης τοῖς πέλας ἐπιτασσομένη. τὰ δὲ τοῦ πολέμου καὶ τῶν ἑκατέροις ὑπαρχόντων ὡς οὐκ ἀσθενέστερα ἕξομεν γνῶτε καθ' ἕκαστον ἀκούοντες. αὐτουργοί τε γάρ εἰσι Πελοποννήσιοι καὶ οὔτε ἰδίᾳ οὔτε ἐν κοινῷ χρήματά ἐστιν αὐτοῖς, ἔπειτα χρονίων πολέμων καὶ διαποντίων ἄπειροι διὰ τὸ βραχέως αὐτοὶ ἐπ' ἀλλήλους ὑπὸ πενίας ἐπιφέρειν. καὶ οἱ τοιοῦτοι οὔτε ναῦς πληροῦντες οὔτε πεζὰς στρατιὰς πολλάκις ἐκπέμπειν δύνανται, ἀπὸ τῶν ἰδίων τε ἅμα ἀπόντες καὶ ἀπὸ τῶν αὐτῶν δαπανῶντες καὶ προσέτι καὶ θαλάσσης εἰργόμενοι· αἱ δὲ περιουσίαι τοὺς πολέμους μᾶλλον ἢ αἱ βίαιοι ἐσφοραὶ ἀνέχουσι. σώμασί τε ἑτοιμότεροι οἱ αὐτουργοὶ τῶν ἀνθρώπων ἢ χρήμασι πολεμεῖν, τὸ μὲν πιστὸν ἔχοντες ἐκ τῶν κινδύνων κἂν περιγενέσθαι, τὸ δὲ οὐ βέβαιον μὴ οὐ προαναλώσειν, ἄλλως τε κἂν παρὰ δόξαν, ὅπερ εἰκός, ὁ πόλεμος αὐτοῖς μηκύνηται. μάχῃ μὲν γὰρ μιᾷ πρὸς ἅπαντας Ἕλληνας δυνατοὶ Πελοποννήσιοι καὶ οἱ ξύμμαχοι ἀντισχεῖν, πολεμεῖν δὲ μὴ πρὸς ὁμοίαν ἀντιπαρασκευὴν ἀδύνατοι, ὅταν μήτε βουλευτηρίῳ ἑνὶ χρώμενοι παραχρῆμά τε ὀξέως ἐπιτελῶσι, πάντες τε ἰσόψηφοι ὄντες καὶ οὐχ ὁμόφυλοι τὸ ἐφ' ἑαυτὸν ἕκαστος σπεύδῃ· ἐξ ὧν φιλεῖ μηδὲν ἐπιτελὲς γίγνεσθαι. καὶ γὰρ οἱ μὲν ὡς μάλιστα τιμωρήσασθαί τινα βούλονται, οἱ δὲ ὡς ἥκιστα τὰ οἰκεῖα φθεῖραι. χρόνιοί τε ξυνιόντες ἐν βραχεῖ μὲν μορίῳ σκοποῦσί τι τῶν κοινῶν, τῷ δὲ πλέονι τὰ οἰκεῖα πράσσουσι· καὶ ἕκαστος οὐ παρὰ τὴν ἑαυτοῦ ἀμέλειαν οἴεται βλάψειν, μέλειν δέ τινι καὶ ἄλλῳ ὑπὲρ ἑαυτοῦ τι προϊδεῖν, ὥστε τῷ αὐτῷ ὑπὸ ἁπάντων ἰδίᾳ δοξάσματι λανθάνειν τὸ κοινὸν ἀθρόον φθειρόμενον.

2. Trace the shades of meaning assumed, here and elsewhere, (*a*) by αὐτόθεν,—(*b*) by αὐτουργός,—ία,—έω, collating such other compounds as αὐτόχειρ,—ία,—ίζω,—(*c*) by χρόνιος, illustrating its usage in the penultimate sentence by that of some other adjectives,—(*d*) by πλήρωμα derived from πληροῦν,—and (*e*) by παρά, noticing especially the phrase παρὰ τὴν ἑαυτοῦ ἀμέλειαν.

3. Render in good Latin (*a*) διὰ τὸ βραχέως αὐτοὶ ἐπ' ἀλλήλους ὑπὸ πενίας ἐπιφέρειν, accounting also for the case of αὐτοί,—and (*b*) ὥστε τῷ αὐτῷ ὑπὸ ἁπάντων ἰδίᾳ δοξάσματι λανθάνειν τὸ κοινὸν ἀθρόον φθειρόμενον, accounting also for the dependence of ὑπὸ ἁπάντων upon a noun.

4. Looking at the two clauses in the seventh sentence from ὅταν μήτε to ἕκαστος σπεύδῃ, notice (*a*) the double reference of μήτε,—(*b*) the employment of τε,—(*c*) the mode (as well as the number) of σπεύδῃ or σπεύδει, between which various readings you will decide.

5. Elucidate (*a*) the force of the participle πληροῦντες,—(*b*) the construction of διανοήθητε ἢ ὑπακούειν ἢ εἰ πολεμήσομεν,—(*c*) the usage of τὸ in the clauses τὸ μὲν πιστὸν ἔχοντες and τὸ δὲ οὐ βέβαιον,—(*d*) the combination μὴ οὐ προαναλώσειν.

6. In these clauses, φιλεῖ μηδὲν ἐπιτελὲς γίγνεσθαι,—μὴ εἴξοντες μηδὲ ξὺν φόβῳ ἕξοντες,—μὴ πρὸς ὁμοίαν ἀντιπαρασκευὴν (the arrangement of which you will explain),—why are μὴ and its compounds the negativee employed?

III.—1. Translate the following extract from Plato, Apologia, cc. 31, 32:

Κινδυνεύει γάρ μοι τὸ ξυμβεβηκὸς τοῦτο ἀγαθὸν γεγονέναι, καὶ οὐκ ἔσθ' ὅπως ἡμεῖς ὀρθῶς ὑπολαμβάνομεν, ὅσοι οἰόμεθα κακὸν εἶναι τὸ τεθνάναι. μέγα μοι τεκμήριον τούτου γέγονεν· οὐ γὰρ ἔσθ' ὅπως οὐκ ἠναντιώθη ἄν μοι τὸ εἰωθὸς σημεῖον, εἰ μή τι ἔμελλον ἐγὼ ἀγαθὸν πράξειν. ἐννοήσωμεν δὲ καὶ τῇδε, ὡς πολλὴ ἐλπίς ἐστιν ἀγαθὸν αὐτὸ εἶναι. δυοῖν γὰρ θάτερόν ἐστι τὸ τεθνάναι· ἢ γὰρ οἷον μηδὲν εἶναι μηδ' αἴσθησιν μηδεμίαν μηδενὸς ἔχειν τὸν τεθνεῶτα, ἢ κατὰ τὰ λεγόμενα μεταβολή τις τυγχάνει οὖσα καὶ μετοίκησις τῇ ψυχῇ τοῦ τόπου ἐνθένδε εἰς ἄλλον τόπον. καὶ, εἴτε δὴ μηδεμία αἴσθησίς ἐστιν, ἀλλ' οἷον ὕπνος, ἐπειδάν τις καθεύδων μηδ' ὄναρ μηδὲν ὁρᾷ, θαυμάσιον κέρδος ἂν εἴη ὁ θάνατος. ἐγὼ γὰρ ἂν οἶμαι, εἴ τινα ἐκλεξάμενον δέοι ταύτην τὴν νύκτα, ἐν ᾗ οὕτω κατέδαρθεν ὥστε μηδ' ὄναρ ἰδεῖν, καὶ εἰ τὰς ἄλλας νύκτας τε καὶ ἡμέρας τὰς τοῦ βίου τοῦ ἑαυτοῦ ἀντιπαραθέντα ταύτῃ τῇ νυκτὶ δέοι σκεψάμενον εἰπεῖν, πόσας ἄμεινον καὶ ἥδιον ἡμέρας καὶ νύκτας ταύτης τῆς νυκτὸς βεβίωκεν ἐν τῷ ἑαυτοῦ βίῳ, οἶμαι ἂν μὴ ὅτι ἰδιώτην τινά, ἀλλὰ τὸν μέγαν βασιλέα εὐαριθμήτους ἂν εὑρεῖν ταύτας πρὸς τὰς ἄλλας ἡμέρας καὶ νύκτας. εἰ οὖν τοιοῦτον ὁ θάνατός ἐστι, κέρδος ἔγωγε λέγω· καὶ γὰρ οὐδὲν πλείων ὁ πᾶς χρόνος φαίνεται οὕτω δὴ εἶναι ἢ μία νύξ. εἰ δ' αὖ οἷον ἀποδημῆσαί ἐστιν ὁ θάνατος ἐνθένδε εἰς ἄλλον τόπον, καὶ ἀληθῆ ἐστι τὰ λεγόμενα, ὡς ἄρα ἐκεῖ εἰσὶν ἅπαντες οἱ τεθνεῶτες, τί μεῖζον ἀγαθὸν τούτου εἴη ἄν, ὦ ἄνδρες δικασταί; * * * * * ἐπι ποσῳ δ' ἄν τις, ὠ ἀνδρες δικασται, δεξαιτο ἐξετασαι τον ἐπι Τροιαν ἀγαγοντα την πολλην στρατιαν, ἢ Ὀδυσσεα, ἢ Σισυφον, ἢ ἄλλους μυριους ἄν τις εἰποι και ἀνδρας και γυναῖκας; οἱς ἐκει διαλεγεσθαι και ξυνειναι και ἐξεταζειν ἀμηχανον ἀν εἰη εὐδαιμονιας παντως. οὐ δηπου τουτου γε ἑνεκα οἱ ἐκει ἀποκτεινουσι· τα τε γαρ ἀλλα εὐδαιμονεστεροι εἰσιν οἱ ἐκει των ἐνθαδε, και ἠδη τον λοιπον χρονον ἀθανατοι εἰσιν, εἰπερ γε τα λεγομενα ἀληθη ἐστιν.

2. (*a*) Set down *all* the tense-forms, which you know to be *used in Attic*, of the verbs represented in this passage by ἀποκτείνουσι, κατέδαρθεν, εἴποι, τεθνάναι, ειωθός, ἀγαγόντα, σκεψάμενον. (*b*) Inflect, through all cases, numbers, and genders, the term represented here by θάτερον. (*c*) Give a declinable noun cognate and also synonymous with ὄναρ,—the sense or senses of ὄνειαρ,—and the translation both of ὄναρ ἢ ὕπαρ ζῆν, and of ἐνύπνιον ἑστιᾶσθαι.

3. Render in Latin the phrases: (*a*) ὡς ἄρα ἐκεῖ εἰσίν, showing the force of ἄρα;—(*b*) τὸν μέγαν βασιλέα and τὴν πολλὴν στρατιάν, showing the force of the article;—(*c*) ἀμήχανον εὐδαιμονίας, a phrase to which you may annex parallels;—(*d*) ἐπι ποσῳ δ' ἄν τις δεξαιτο ἐξετασαι;—(*e*) οὐκ ἔσθ' ὅπως ὑπολαμβάνομεν, and οὐ γὰρ ἔσθ' ὅπως οὐκ ἠναντιώθη ἄν μοι.

4. Explain (*a*) the sarcastic reference in τούτου γε ἕνεκα ἀποκτείνουσι;—(*b*) the dative case of τῇ ψυχῇ after μετοίκησις;—(*c*) the combination μὴ ὅτι, distinguishing ὅτι μή, and supplying the ellipses in both phrases;—(*d*) the usage of οἷον in such expressions as ἢ γὰρ οἷον μηδὲν εἶναι.

5. (*a*) Point out a syntactical incongruity in the hypothetical clause, εἴτε δὴ μηδεμία αἴσθησίς ἐστιν, and another in the words ἐξετάσαι ἢ Σίσυφον ἢ ἄλλους μυρίους ἄν τις εἴποι καὶ ἄνδρας καὶ γυναῖκας;—(*b*) account for the repetition of οἶμαι ἂν and of εἰ δέοι, and to ἂν in the former place supply the word which it was intended to modify;—(*c*) notice another repetition of greater extent in the course of the extract.

6. Accentuate from ἐπι ποσῳ δ' ἀν τις to ἀληθη ἐστιν.

IV.—Translate into Attic Prose the following passage:

No one will deny that the two principal objects in a well-conducted education are, to cultivate a good heart, and to give the understanding such additional strength and information as may safely direct the heart in the various events of life, and teach the possessor of it to act up to the comparative dignity of human nature. But attainments merely ornamental have little tendency to accomplish either of these purposes. On the contrary, as they add a lustre without solidity, they induce idleness to content itself with the appearances of merit, which are easily assumed, and to neglect the reality, as attainable only by a painful and unostentatious application. They are then only useful and **truly** graceful, when they tend to render good characters more conspicuously amiable.

*27th September*, 1853.

### GREEK—*Examiner, Charles Mac Douall, A.M.*

I.—1. Translate ILIAD. XXIII., 313–343:

> Ἀλλ' ἄγε δὴ σύ, φίλος, μῆτιν ἐμβάλλεο θυμῷ
> παντοίην, ἵνα μή σε παρεκπροφύγῃσιν ἄεθλα.
> μήτι τοι δρυτόμος μέγ' ἀμείνων ἠὲ βίηφιν·
> μήτι δ' αὖτε κυβερνήτης ἐνὶ οἴνοπι πόντῳ
> νῆα θοὴν ἰθύνει ἐρεχθομένην ἀνέμοισιν·
> μήτι δ' ἡνίοχος περιγίγνεται ἡνιόχοιο.
> ἄλλος μὲν θ' ἵπποισι καὶ ἅρμασιν οἷσι πεποιθὼς,
> ἀφραδέως ἐπὶ πολλὸν ἑλίσσεται ἔνθα καὶ ἔνθα,
> ἵπποι δὲ πλανάονται ἀνὰ δρόμον, οὐδὲ κατίσχει·
> ὃς δέ κε κέρδεα εἰδῇ, ἐλαύνων ἥσσονας ἵππους,
> αἰεὶ τέρμ' ὁράων στρέφει ἐγγύθεν, οὐδέ ἑ λήθει,
> ὅππως τὸ πρῶτον τανύσῃ βοέοισιν ἱμᾶσιν,
> ἀλλ' ἔχει ἀσφαλέως καὶ τὸν προὔχοντα δοκεύει.
> σῆμα δέ τοι ἐρέω μάλ' ἀριφραδὲς, οὐδέ σε λήσει.
> ἕστηκε ξύλον αὖον, ὅσον τ' ὄργυι', ὑπὲρ αἴης,
> ἢ δρυὸς ἢ πεύκης· τὸ μὲν οὐ καταπύθεται ὄμβρῳ·
> λᾶε δὲ τοῦ ἑκάτερθεν ἐρηρίδαται δύο λευκὼ
> ἐν ξυνοχῇσιν ὁδοῦ, λεῖος δ' ἱππόδρομος ἀμφίς·
> ἤ τευ σῆμα βροτοῖο πάλαι κατατεθνηῶτος,
> ἢ τό γε νύσσα τέτυκτο ἐπὶ προτέρων ἀνθρώπων,
> καὶ νῦν τέρματ' ἔθηκε ποδάρκης δῖος Ἀχιλλεύς.
> τῷ σὺ μάλ' ἐγχρίμψας ἐλάειν σχεδὸν ἅρμα καὶ ἵππους,
> αὐτὸς δὲ κλινθῆναι ἐϋπλέκτῳ ἐνὶ δίφρῳ
> ἦκ' ἐπ' ἀριστερὰ τοῖιν· ἀτὰρ τὸν δεξιὸν ἵππον
> κένσαι ὁμοκλήσας, εἶξαί τέ οἱ ἡνία χερσίν.
> ἐν νύσσῃ δέ τοι ἵππος ἀριστερὸς ἐγχριμφθήτω,
> ὡς ἄν τοι πλήμνη γε δοάσσεται ἄκρον ἱκέσθαι
> κύκλου ποιητοῖο· λίθου δ' ἀλέασθαι ἐπαυρεῖν,
> μή πως ἵππους τε τρώσῃς κατὰ θ' ἅρματα ἄξῃς·
> χάρμα δὲ τοῖς ἄλλοισιν, ἐλεγχείη δὲ σοὶ αὐτῷ
> ἔσσεται. ἀλλά, φίλος, φρονέων πεφυλαγμένος εἶναι.

2. Name the parties speaking and spoken to in these lines,—specify the occasion to which the address was suited,—and mention the various contest by which the chariot-race was on that occasion succeeded.

3. Mention the occasions in connexion with which funeral-games have been described by Latin poets—as Virgilius, Statius, Silius Italicus.

4. (*a*) Quote, or construct, a dactylic pentameter line naming the exercises of the *πένταθλος*. (*b*) What do you understand by *τρισὶ περιεῖναι?*

II.—1. Translate ODYS., XI., 113–136:

> Ὀψὲ κακῶς νεῖαι, ὀλέσας ἄπο πάντας ἑταίρους,
> νηὸς ἐπ' ἀλλοτρίης· δήεις δ' ἐν πήματα οἴκῳ,
> ἄνδρας ὑπερφιάλους, οἵ τοι βίοτον κατέδουσιν
> μνώμενοι ἀντιθέην ἄλοχον καὶ ἕδνα διδόντες.
> ἀλλ' ἤτοι κείνων γε βίας ἀποτίσεαι ἐλθών·
> αὐτὰρ ἐπὴν μνηστῆρας ἐνὶ μεγάροισι τεοῖσιν
> κτείνῃς ἠὲ δόλῳ ἢ ἀμφαδὸν ὀξέϊ χαλκῷ,
> ἔρχεσθαι δὴ ἔπειτα, λαβὼν εὐῆρες ἐρετμόν,
> εἰς ὅ κε τοὺς ἀφίκηαι, οἳ οὐ ἴσασι θάλασσαν
> ἀνέρες, οὐδέ θ' ἅλεσσι μεμιγμένον εἶδαρ ἔδουσιν.
> σῆμα δέ τοι ἐρέω μάλ' ἀριφραδές, οὐδέ σε λήσει.
> ὁππότε κεν δή τοι ξυμβλήμενος ἄλλος ὁδίτης
> φήῃ ἀθηρηλοιγὸν ἔχειν σ' ἀνὰ φαιδίμῳ ὤμῳ,
> καὶ τότε δὴ γαίῃ πήξας εὐῆρες ἐρετμόν,
> ῥέξας ἱερὰ καλὰ Ποσειδάωνι ἄνακτι,
> οἴκαδ' ἀποστείχειν, ἔρδειν θ' ἱερὰς ἑκατόμβας
> ἀθανάτοισι θεοῖσι, τοὶ οὐρανὸν εὐρὺν ἔχουσιν,
> πᾶσι μάλ' ἑξείης· θάνατος δέ τοι ἐξ ἁλὸς αὐτῷ
> ἀβληχρὸς μάλα τοῖος ἐλεύσεται, ὅς κέ σε πέφνῃ
> γήραι ὕπο λιπαρῷ ἀρημένον· ἀμφὶ δὲ λαοὶ
> ὄλβιοι ἔσσονται. τὰ δέ τοι νημερτέα εἴρω.

2. (*a*) What part of this prediction is represented as fulfilled in the sequel of the *Odyssea?* (*b*) Mention any accounts that jar with the latter portion of it, quoting such allusions as you may remember in Greek or Latin poets.

3. From either of the above extracts illustrate some of the characteristics by which the Homeric phraseology is distinguished from that of subsequent periods.

4. Notice metrical peculiarities in either passage, including *caesura, ictus metricus,* and *hiatus;* and restore any archaic forms of words, justified by tradition and analogy, which metrical usage may here desiderate.

III.—1. Translate ÆSCH. PROM. VINCT. 645–668:

> Ἀεὶ γὰρ ὄψεις ἔννυχοι πολούμεναι
> ἐς παρθενῶνας τοὺς ἐμοὺς παρηγόρουν
> λείοισι μύθοις· ὦ μέγ' εὔδαιμον κόρη,
> τί παρθενεύει δαρόν, ἐξόν σοι γάμου
> τυχεῖν μεγίστου; Ζεὺς γὰρ ἱμέρου βέλει
> πρὸς σοῦ τέθαλπται καὶ ξυναίρεσθαι Κύπριν
> θέλει· σὺ δ', ὦ παῖ, μὴ 'πολακτίσῃς λέχος
> τὸ Ζηνός, ἀλλ' ἔξελθε πρὸς Λέρνης βαθὺν
> λειμῶνα, ποίμνας βουστάσεις τε πρὸς πατρὸς,
> ὡς ἂν τὸ Δῖον ὄμμα λωφήσῃ πόθου.
> τοιοῖσδε πάσας εὐφρόνας ὀνείρασι
> ξυνειχόμην δύστηνος, ἔστε δὴ πατρὶ
> ἔτλην γεγωνεῖν νυκτίφαντ' ὀνείρατα.
> ὁ δ' ἔς τε Πυθὼ κἀπὶ Δωδώνης πυκνοὺς
> θεοπρόπους ἴαλλεν, ὡς μάθοι τί χρὴ
> δρῶντ' ἢ λέγοντα δαίμοσιν πράσσειν φίλα.
> ἧκον δ' ἀναγγέλλοντες αἰολοστόμους
> χρησμοὺς ἀσήμους δυσκρίτως τ' εἰρημένους.
> τέλος δ' ἐναργὴς βάξις ἦλθεν Ἰνάχῳ
> σαφῶς ἐπισκήπτουσα καὶ μυθουμένη
> ἔξω δόμων τε καὶ πάτρας ὠθεῖν ἐμέ,
> ἄφετον ἀλᾶσθαι γῆς ἐπ' ἐσχάτοις ὅροις·
> κεἰ μὴ θέλοι, πυρωπὸν ἐκ Διὸς μολεῖν
> κεραυνόν, ὃς πᾶν ἐξαιστώσοι γένος.

2. Translate SOPH. ŒD. COLON. 1018–1037:

> ΚΡ. τί δῆτ' ἀφαυρῷ φωτὶ προστάσσεις ποιεῖν;
> ΘΗΣ. ὁδοῦ κατάρχειν τῆς ἐκεῖ, πομπὸν δέ μοι
> χωρεῖν, ἵν', εἰ μὲν ἐν τόποισι τοῖσδ' ἔχεις
> τὰς παῖδας, ἥκων αὐτὸς ἐνδείξῃς ἐμοί·
> εἰ δ' ἐγκρατεῖς φεύγουσιν, οὐδὲν δεῖ πονεῖν·
> ἄλλοι γὰρ οἱ σπεύδοντες, οὓς οὐ μή ποτε
> χώρας φυγόντες τῆσδ' ἐπεύξωνται θεοῖς.
> ἀλλ' ἐξυφηγοῦ· γνῶθι δ' ὡς ἔχων ἔχει,
> καί σ' εἷλε θηρῶνθ' ἡ τύχη· τὰ γὰρ δόλῳ
> τῷ μὴ δικαίῳ κτήματ' οὐχὶ σῴζεται.
> κοὐκ ἄλλον ἕξεις εἰς τόδ'· ὡς ἐξοῖδά σε
> οὐ ψιλὸν οὐδ' ἄσκευον ἐς τοσήνδ' ὕβριν
> ἥκοντα τόλμης τῆς παρεστώσης τανῦν·
> ἀλλ' ἔσθ' ὅτῳ σὺ πιστὸς ὢν ἔδρας τάδε.
> ἃ δεῖ μ' ἀθρῆσαι, μηδὲ τήνδε τὴν πόλιν
> ἑνὸς ποιῆσαι φωτὸς ἀσθενεστέραν.
> νοεῖς τι τούτων; ἢ μάτην τανῦν τέ σοι
> δοκεῖ λελέχθαι, χὤτε ταῦτ' ἐμηχανῶ;
> ΚΡ. οὐδὲν σὺ μεμπτὸν ἐνθάδ' ὢν ἐρεῖς ἐμοί·
> οἴκοι δὲ χἡμεῖς εἰσόμεσθ' ἃ χρὴ ποιεῖν.

3. Translate EURIP. MEDEA, 1090–1114, 1112–1115:

> Καὶ φημὶ βροτῶν, οἵτινές εἰσιν
> πάμπαν ἄπειροι μηδ' ἐφύτευσαν
> παῖδας, προφέρειν εἰς εὐτυχίαν
> τῶν γειναμένων.
> οἱ μὲν γ' ἄτεκνοι, δι' ἀπειροσύναν
> εἴθ' ἡδὺ βροτοῖς εἴτ' ἀνιαρὸν
> παῖδες τελέθουσ', οὐχὶ τυχόντες,
> πολλῶν μόχθων ἀπέχονται.
> οἷσιν δὲ τέκνων ἔστιν ἐν οἴκοις
> γλυκερὸν βλάστημ', ἐσορῶ μελέτῃ
> κατατρυχομένους τὸν ἅπαντα χρόνον·
> πρῶτον μὲν ὅπως θρέψουσι καλῶς,
> βίοτόν θ' ὁπόθεν λείψουσι τέκνοις·
> ἔτι δ' ἐκ τούτων, εἴτ' ἐπὶ φλαύροις
> εἴτ' ἐπὶ χρηστοῖς
> μοχθοῦσι, τόδ' ἐστὶν ἄδηλον.
>
> * * * * * *
>
> πῶς οὖν λύει πρὸς τοῖς ἄλλοις
> τήνδ' ἔτι λύπην ἀνιαροτάτην
> παίδων ἕνεκεν
> θνητοῖσι θεοὺς ἐπιβάλλειν;

4. Translate EURIP. ALCEST. 568–596:

> ΧΟ. ὦ πολύξεινος καὶ ἐλεύθερος ἀνδρὸς ἀεί ποτ' οἶκος,
> σέ τοι καὶ ὁ Πύθιος εὐλύρας Ἀπόλλων
> ἠξίωσε ναίειν·
> ἔτλη δὲ σοῖσι μηλονόμας
> ἐν δόμοις γενέσθαι,

δοχμιᾶν διὰ κλιτύων
βοσκήμασι σοῖσι συρίζων
ποιμνίτας ὑμεναίους.
σὺν δ' ἐποιμαίνοντο χαρᾷ μελέων βαλιαί τε λύγκες,
ἔβα τε λιποῦσ' Ὄθρυος νάπαν λεόντων
ἁ δαφοινὸς ἴλα·
ἐχόρευσε δ' ἀμφὶ σὰν κιθάραν,
Φοῖβε, ποικιλόθριξ
νεβρός, ὑψικόμων πέραν
βαίνουσ' ἐλατᾶν σφυρῷ κούφῳ,
χαίρουσ' εὔφονι μολπᾷ.
τοιγὰρ πολυμηλοτάταν
ἑστίαν οἰκεῖ, παρὰ καλλίναον
Βοιβίαν λίμναν· ἀρότοις δὲ γυᾶν
καὶ πεδίων δαπέδοις ὅρον ἀμφὶ μὲν ἀελίου κνεφαίαν
ἱππόστασιν αἰθέρα τὰν Μολοσσῶν τίθεται,
πόντιον δ' Αἰγαίων' ἐπ' ἀκτὰν
ἀλίμενον Πηλίου κρατύνει.

5. Translate Eurip. Orest. 774-780, 799-806:

ΟΡ. εἶεν· εἰς κοινὸν λέγειν χρή. ΠΥΛ. τίνος ἀναγκαίου πέρι;
ΟΡ. εἰ λέγοιμ' ἀστοῖσιν ἐλθὼν—ΠΥΛ. ὡς ἔδρασας ἔνδικα;
ΟΡ. πατρὶ τιμωρῶν ἐμαυτοῦ; ΠΥΛ. μὴ οὐ λάβωσί σ' ἄσμενοι.
ΟΡ. ἀλλ' ὑποπτήξας σιωπῇ κατθάνω; ΠΥΛ. δειλὸν τόδε.
ΟΡ. πῶς ἂν οὖν δρῴην; ΠΥΛ. ἔχεις τιν', ἣν μένῃς, σωτηρίαν;
ΟΡ. οὐκ ἔχω. ΠΥΛ. μολόντι δ' ἐλπίς ἐστι σωθῆναι κακῶν;
ΟΡ. εἰ τύχοι, γένοιτ' ἄν. ΠΥΛ. οὐκοῦν τοῦτο κρεῖσσον ἢ μένειν.
* * * * * * * * *

ἀλλ' ἔπειγ', ὡς μή σε πρόσθε ψῆφος Ἀργείων ἕλῃ,
περιβαλὼν πλευροῖς ἐμοῖσι πλευρὰ νωχελῆ νόσῳ·
ὡς ἐγὼ δὶ ἄστεός σε, σμικρὰ φροντίζων ὄχλου,
οὐδὲν αἰσχυνθείς, ὀχήσω· ποῦ γὰρ ὢν δείξω φίλος,
εἴ σε μὴ 'ν δειναῖσιν ὄντα συμφοραῖς ἐπαρκέσω;

IV.—1. (*a*) Name the metre in which each of the five dramatic extracts is composed. (*b*) Write out, fully and accurately, the laws for both iambic trimeter and trochaic tetrameter, and point out the analogies between these two metres in regard to restrictions as well as permissible varieties of structure.

2. (*a*) In regard to the particles, οὐ, μή, οὐ μή, μὴ οὐ,—ὡς, ὅπως, ἵνα,—εἰ, ἐάν, ἐπεί, ἐπήν, state clearly the rules for their use, and for the modal forms of the verbs which they may severally introduce. (*b*) Exemplify your remarks from the dramatic extracts. (*c*) In regard to *every* verb in the *fifth* extract, explain why ἂν is conjoined or why it is absent.

V.—Translate in Homeric Hexameters:

In antient song and story marvels high are told,
Of knights of proud emprise and adventures manifold:
Of joys and wassail-tides, of wailing and rueful cheer,
Of the gestes of valiant warriors, ye may now the wonders hear.
* * * * * * * *

Three kings of might and prowess had a maiden in their care:
She was their only sister, heanteous without compare.
For love and for delight was framed that lady gay:
Many a doughty champion sighed for the gentle may.

*Or* in the Trimeter Iambics of Tragedy:

Peninsularum, Sirmio, insularumque
Ocelle, quascunque in liquentibus stagnis
Marique vasto fert uterque Neptunus,
Quam te libenter quamque laetus inviso!
O! quid solutis est beatius curis,
Quum mens onus reponit, ac peregrino
Labore fessi venimus larem ad nostrum
Desideratoque acquiescimus lecto?
Hoc est quod unum est pro laboribus tantis.

*28th September*, 1853, 9 *o'clock, a.m.*

### Latin—*Examiner, Mr. Lewis.*

### Terence—Adelphi.

Translate:

SY. Tace, egomet conveniam ipsum: cupide accipiat jam faxo: atque etiam
Bene dicat secum esse actum. quid istuc, Sanniost, quod te audio
Nescio quid concertasse cum ero? SA. Numquam vidi iniquius
Certationem comparatam, quam hodie quæ inter nos fuit:
Ego vapulando, ille verberando, usque ambo defessi sumus.
SY. Tua culpa. SA. Quid facerem? SY. Adulescenti morem gestum oportuit.

SA. Qui potui melius, qui hodie ei usque os prœbui? SY. Age, scis quid loquar?
Pecuniam in loco neglegere, maxumum interdumst lucrum. SA. Hui:
Metuisti, si nunc de tuo jure concessisses paululum, atque
Adalescenti esses morigeratus, hominum homo stultissime,
Ne non tibi istuc fœneraret. SA. Ego spem pretio non emo.
SY. Numquam rem facies, abi, non scis inescare homines, Sannio.
SA. Credo istuc melius esse; verum ego numquam adeo astutus fui,
Quin quicquid possem mallem auferre potius in præsentia.
SY. Age novi tuum animum: quasi jam usquam tibi sint viginti minæ,
Dum huic obsequare. Præterea autem te aiunt proficisci Cyprum. SA. Hem
SY. Cœmisse hinc quæ illuc veheres multa; navem conductam: hoc scio,
Animne tibi pendet, ubi illinc spero redieris tamen, hoc ages.
SA. Nusquam pedem: perii hercle, hac illi spe hoc inceperunt. SY. Timet:
Injeci scrupulum homini. SA. O scelera, illud vide,
Ut in ipso articulo oppressit, emptæ mulieres
Complures, et item hinc alia quæ porto Cyprum,
Nisi eo ad mercatum venio, damnum est maxumum.
Nunc si hoc omittam, ac tum agam ubi illinc rediero;
Nihil est: refrixerit res: nunc demum venis?
Cur passus? ubi eras? ut sit satius perdere
Quam aut hic manere tamdiu, aut tum persequi.

### (B.) CICERO—DE ORATORE, BOOK I.

Antonii incredibilis quædam et prope singularis et divina vis ingenii videtur, etiamsi hac scientia iuris nudata sit, posse se facile cæteris armis prudentiæ tueri atque defendere. Quamobrem hi nobis sint excepti; cæteros vero non dubitabo primum inertiæ condemnare sententia mea, post etiam impudentiæ. Nam volitare in foro, hærere in iure ac prætorum tribunalibus, iudicia privata magnarum rerum obire, in quibus sæpe non de facto, sed de æquitate ac iure certetur, iactare se in causis centumviralibus, in quibus usucapionum, tutelarum, gentilitatum, agnationum, adluvionum, circumluvionum, nexorum, mancipiorum, parietum, luminum, stillicidiorum, testamentorum ruptorum aut ratorum cæterarumque rerum innumerabilium iura versentur, quum omnino, quid suum, quid alienum, quare denique civis aut peregrinus, servus aut liber quispiam sit, ignoret, insignis est impudentiæ. Illa vero deridenda adrogantia est, in minoribus navigiis rudem esse se confiteri, quinqueremes aut etiam maiores gubernare didicisse. Tu mihi quum in circulo decipiare adversarii stipulatiuncula et quum obsignes tabellas clientis tui, quibus in tabellis id sit scriptum, quo ille capiatur, ego tibi ullam causam maiorem committendam putem? Citius hercule is, qui duorum scalmorum naviculam in portu everterit, in Euxino ponto Argonautarum navem gubernarit.

### (C.) LIVY, BOOK XXII.

Ubi is finem fecit, extemplo ab ea turba, quæ in comitio erat, clamor flebilis est sublatus, manusque ad curiam tendebant orantes ut sibi liberos fratres cognatos redderent. feminas quoque metus ac necessitas in foro turbæ virorum immiscuerat. senatus summotis arbitris consuli cœptus. ibi cum sententiis variaretur, et alii redimendos de publico, alii nullam publice impensam faciendam nec prohibendos ex privato redimi, si quibus argentum in præsentia deesset, dandam ex ærario pecuniam mutuam, prædibusque ac prædiis cavendum populo censerent; tum T. Manlius Torquatus, priscæ ac nimis duræ, ut plerisque videatur, severitatis, interrogatus sententiam ita locutus fertur: si tantummodo postulassent legati pro his, qui in hostium potestate sunt, ut redimerentur, sine ullius insectatione eorum brevi sententiam peregissem. quid enim aliud quam admonendi essetis, ut morem traditum a patribus necessario ad rem militarem exemplo servaretis? nunc autem, cum prope gloriati sint, quod se hostibus dediderint, præferrique non captis modo in acie ab hostibus sed etiam iis, qui Venusiam Canusiumque pervenerunt, atque ipsi C. Terentio consuli æquum censuerint, nihil vos eorum, patres conscripti, quæ illic acta sunt, ignorare patiar. atque utinam hæc, quæ apud vos acturus sum, Canusii apud ipsum exercitum agerem, optimum testem ignaviæ cuiusque et virtutis; aut unus hic saltem adesset P. Sempronius, quem si isti ducem secuti essent, milites hodie in castris Romanis non captivi in hostium potestate essent. et cum fessis pugnando hostibus, tum victoria lætis et ipsis plerisque regressis in castra sua, noctem ad erumpendum liberam habuissent, et septem milia armatorum hominum erumpere etiam per confertos hostes possent, neque per se ipsi id facere conati sunt neque alium sequi voluerunt. nocte prope tota P. Sempronius Tuditanus non destitit monere adhortari eos, dum paucitas hostium circa castra, dum quies ac silentium esset, dum nox inceptum tegere posset, se ducem sequerentur: ante lucem pervenire in tuta loca, in sociorum urbes posse.

1. Explain the legal terms in extract (B).

2. Translate:

Una fingendi est ars, in qua præstantes fuerunt Myro Polyclitus Lysippus; qui omnes inter se dissimiles fuerunt, sed ita tamen, ut neminem sui velis esse dissimilem. Una est ars ratioque picturæ dissimillimique tamen inter se Zeuxis Aglaophon Apelles; neque eorum quisquam est, cui quicquam in arte sua deesse videatur.

Illustrate this passage by quotations from Latin poets, and describe the most celebrated works of the artists here mentioned.

3. Give a summary of Juvenal's third Satire, with a notice of the most striking passages in it. By what modern authors has it been successfully imitated?

4. Explain the following words,—haruspex, fetialis, pater patratus, histrio, comœdia, persona, Atellanæ fabulæ.

5. Draw a map of Sicily. Insert the names of the towns which occur in Cicero's Verrine Orations.

6. Briefly characterize the style of Tacitus. Mention some cases in which his Latinity differs from that of the golden age. Can we ascertain from his writings the period in which he flourished?

*28th September*, 1853, 2 *o'clock. p.m.*

### LATIN—*Examiner, Mr. Lewis,*

Translate into English:

HORACE.—EPISTOLA AD PISONES.

Ignotum tragicæ genus invenisse Camenæ
Dicitur et plaustris vexisse poëmata Thespis,
Quæ canerent agerentque peruncti fæcibus ora.
Post hunc personæ pallæque repertor honestæ
Aeschylus et modicis instravit pulpita tignis,
Et docuit magnumque loqui uitique cothurno.
Successit vetus his comœdia, non sine multa
Laude; sed in vitium libertas excidit et vim
Dignam lege regi: lex est accepta, chorusque
Turpiter obticuit sublato iure nocendi.
Nil intentatum nostri liquere poëtæ;
Nec minimum meruere decus, vestigia Græca
Ausi deserere et celebrare domestica facta,
Vel qui prætextas vel qui docuere togatas.
Nec virtute foret clarisve potentius armis,
Quam lingua Latium, si non offenderet unum-
Quemque poëtarum limæ labor et mora. Vos, o
Pompilius sanguis, carmen reprehendite, quod non
Multa dies et multa litura coërcuit atque
Perfectum decies non castigavit ad unguem.

Translate into Latin prose:

A man, who, in ordinary life, is very inquisitive after every thing which is spoken ill of him, passes his time but very indifferently. He is wounded by every arrow that is shot at him, and puts it in the power of every insignificant enemy to disquiet him. Nay, he will suffer from what has been said of him, when it is forgotten by those who said or heard it. For this reason I could never bear one of those officious friends, that would be telling every malicious report, every idle censure that passed upon me. The tongue of man is so petulant, and his thoughts so variable, that one should not lay too great a stress upon any present speeches and opinions. Praise and obloquy proceed out of the same month upon the same person, and upon the same occasion. A generous enemy will sometimes bestow commendations, as the dearest friend cannot sometimes refrain from speaking ill.

Translate into Latin lyrics:

Ah, happy hills, ah, pleasing shade,
  Ah, fields belov'd in vain,
Where once my careless childhood stray'd,
  A stranger yet to pain!
I feel the gales, that from ye blow,
A momentary bliss bestow,
  As waving fresh their gladsome wing,
My weary soul they seem to soothe,
And, redolent of joy and youth,
  To breathe a second spring.

*30th September*, 1853, 9 *o'clock, a.m.*

### FRENCH—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

I.

1. What was the language spoken by the inhabitants of Gaul at the time of the introduction of Christianity, viz., in the second century?

2. Give proofs of this.

3. What changes had this language undergone in the ninth century? What is the proper denomination of it? And what is generally considered the most ancient monument of it?

4. What is the origin of the French article definite?—indefinite?—partitive? What difference is there between the use of the articles in old and in modern French?

5. The article is sometimes used in French and not in English, and *vice versa*; state the rules in accordance with which this takes place.

6. What is the origin of the use of the two auxiliary verbs?

7. To what do you trace the form of the French future?

8. Explain the manner in which the third and fourth conjugations, viz., those in *oir* and *re* were derived from the Latin

### II.—Seventeenth Century.

The second portion of this century is called by Voltaire and many others "*le siècle de Louis quatorze;*" shew in what respect the statement of the influence of this king on literature is exaggerated and unjust towards his predecessors; mention the authors of that age, the period about which they wrote their best works, the origin of the French Academy, and the date and influence of the *Hôtel Rambouillet*.

### III.

Translate into French:—

1. The Swedes live a long time when they do not weaken themselves by the immoderate use of strong liquors and wines, which the northern nations seem to like so much the more as nature has refused them to them.

2. There are not more than nine millions of our livres in specie (*coined money*) in the whole country. The public bank, which is the oldest in Europe, was introduced there from necessity, because the payments being made in copper and iron coin, the carriage of it was too difficult.

3. Disguised as a peasant.

Voltaire—*Charles XII.*

### IV.

Une grenouille vit un bœuf
Qui lui sembla de belle taille.
Elle, qui n'était pas grosse en tout comme un œuf,
Envieuse, s'étend, et s'enfle, et se travaille,
Pour égaler l' animal en grosseur;
Disant: Regardez bien, ma sœur,
Est-ce assez? dites-moi; n'y suis-je point encore?—
Nenni.—M'y voici donc?—Point du tout.—M'y voila?—
Vous n'en approchez point. La chétive pécore
S'enfla si bien qu' elle creva.
Le monde est plein de gens qui ne sont pas plus sages:
Tout bourgeois veut bâtir comme les grands seigneurs;
Tont petit prince a des ambassadeurs;
Tout marquis veut avoir des pages.

La Fontaine—*Fables.*

*30th September*, 1853, 9 *o'clock, a.m.*

## German—*Examiner, I. G. Abeltshauser, LL.D., M.R.I.A.*

### I.

1. What European languages compose the Teutonic family?
2. By what link are they connected with the Semitic and Greco-Latin languages, according to Bopp and Grimm?
3. What is the general name given by modern philologists to this whole group of languages?
4. What are the great divisions of the Teutonic, ancient and modern?
5. What class of English words are derived from the Teutonic?
6. What are the principal changes of letters which the English has undergone with respect to the German, and what is the general limit of those changes?
7. What trace of German cases is to be found in English?

### Göthe.

1. The principal circumstances of his life?
2. His chief works?
3. What rhythm did he use in his poetry?
4 What philosophical and literary influences acted most on him at different periods of his life?
5. When did he write Faust?

### II.

1. What is the difference between separable and inseparable particles?
2. What difference is there in their pronunciation?
3. What is the sign of the past participle?
4. When is it omitted?
5. What is the position of the preposition *zu*, before the infinitives of verbs compounded with separable and inseparable particles respectively? Give examples.
6. Explain the force of the particles *ver*, *zer*, *be*, *ent*, *er*. Give their Latin or English equivalents, and examples.
7. When are adjectives declined, and when not? Give examples.
8. Explain the causes of this difference.
9. What is the form of the German adverb?

### III.

Translate into German:

In the capital all constraint is banished as much as possible. Compliments are, at bottom, just as irksome to him who pays them as to him who receives them. People are allowed to eat what they have a mind, and as much as they like; there is no pressing.

Titles are only used in office; in social life they would only discourage enjoyment. In short, a good host seeks to banish every thing which can disturb the comfort of his guests. People come, sit down, stand, just as they please. They depart without taking leave.—*Kotzebue, die deutschen Kleinstädter.*

### IV.

Du biſt vielleicht, mein lieber Leſer, ſchon irgendwo, nach mannichfachem Auf—und Abtreiben in der Welt, an einen Ort gekommen, wo Dir es wohl war; die Jedwedem eingeborene Liebe zu eignem Heerd und ſtillen Frieden ging wieder auf in Dir; Du, meinteſt, die Heimath blühe mit allen Blumen der Kindheit und der allerreinſten, innigſten Liebe, wieder aus theuren Grabſtätten hervor, und hier müſſe gut wohnen und Hütten bauen ſeyn. Ob Du Dich darin geirrt, und den Irrthum nachher ſchmerzlich abgebüßt haſt, das ſoll hier nichts zur Sache thun, und Du wirſt Dich auch ſelbſt wohl mit dem herben nachſchmack nicht freiwillig betrüben wollen. Aber rufe jene unausſprechliche ſüße Ahnung, jenen engliſchen Gruß des Friedens wieder in Dir herauf, und Du wirſt ungefähr wiſſen können, wie dem Ritter Huldbrand während ſeines Lebens auf der Seeſpitze zu Sinne war.

*La Motte Fouque. Undine.*

*September*, 1853.

## Celtic Languages—*Examiner, John O'Donovan, LL.D.*

Translate the following passage into Irish:

I have heard some great warriors say, that in all the services which they had seen abroad in foreign countries, they never saw a more comely man there than the Irishman, nor that cometh on more bravely in his charge; neither is his manner of mounting unseemly, though he lack atirrups, but more ready than with stirrups; for, in his getting np his horse is still going, whereby he gaineth way: and therefore the stirrup was called so in scorn, as it were a stay to get up, being derived of the old English word *sty*, which is to get up or mount.—*Spenser.*

Translate the following passages into English:

1. Dulluidh Patricc o Themuir hi crich Laigen, conrancatar ocus Dubthach Macc U Lugir ucc Domnuch mar Criathar la Auv Censelich. Alis Patricc Dubthach in damnae n-Epscuip dia desciplib di Laignib, idon, fer soer socheniuil, cen ón, cen ainimb, na dipru becc, na dipru mar béda, sommae, toisclim; fer oensetche, du na ructhae acht oen tnístiu.—*Book of Armagh*, fol. 18.

2. A. D. M. xiv. Sluaged la Brian, mac Cennetig, mic Lorcain, la Ardrig Erend, gu mór·miledaib oll·chúgid chend alaind Muman, ocus la Maelsechnaill, mac Domnaill, rig Temrach, gu mathibh fer n Erend maraen riu, co Athcliath, i nagid Gall glas, ocus Danmargach, ocus i nagid Mailmorda mic Murchada, rig Lagen, uair is é ro thinoel, ocus ro treorig, ocus ro timsuich leis iat a hinsib ocus a oileanaib Lochlaind a n-iarthuaidh, ocus o duinib ocus a degbaledih Sacsan ocus Bretan, cu iath Erend. Deich cet lurech leo.—*Annals of Boyle.*

3. Cioth cloichshneachta do fhearthain hi Callainn Maii na bliadhna so. Ba hécsamhail iongnath fearthain an cheatha isin, uair bátar dronga i n-Erinn na ro mhachtnaidh é acht amhail nach cioth naile; batar dronga n-aile o ro togbait tighe trebhar-dhaingue, agus o ro baidhit ceathra agus innile. Na guirt geamhuir ro bhaoi ar na sioladh raithe no leithbhliadhain rias an tan sin ro fhaccaibh an cioth sin ina leargaibh loma gan ioth, gan fheor iad. Ro fhágbhaidh an cioth cedna bheos cudroma gach cloiche da gcuireadh do mhioll mhaothghurm for na luirgnibh fris a mbeanadh.—*Annals of the Four Masters*, A. D. 1574.

4. A deir Camden gur ab nos d' Eireannchaibh breitheamhuin, seanchadha, fileadha, leagha, agus aes téad do bheith ag a n-uaislibh, agus tearmoinn do bhronnadh dhoibh; agus fos saoirse do bheith ag a spreidh, agus ag a bpearsannaibh, agus ag a bhfearann. Ag so mar a deir ag labhairt orra: Ata ag na flaithibb si a n-dlightheoiridh fein, da n-gairid Breitheamhuin, a stairtheoiridh re scriobhadh a n·gniomb, a leagha, a bh-fileadha, da n-gairíd Baird, agus a lucht seanma; agus fearann cinnte do gach aon diobh so, agus iad ag aitiughadh ina bh-fearann fein, agus gach aon diobh do threibh chinte fa seach; mar a ta na Breitheamhuin do threibh agus do shloiuneadh d'airightbe, na seanchadha, no na stairtheoiridh do threibh agus do shloinneadh eile, agus mar sin do cach eile ó sin amach; do sheoladaois a g·clann agus a n-gaolta, gach aon diobh ina chéird fein; agus bid lucht a leanta is na healadhnaibh sin doibh fein do ahior.—*Keating.*

1. Repeat the general rule which regulates the modern Irish orthography.
2. Explain the nature of aspiration and eclipses in Irish grammar. When does eclipsis take place in nouns, and when in verbs?
3. Decline the noun *fearann*, land, with and without the article *an*.
4. Decline the noun *tir*, a country, with and without the article.
5. Decline the noun *súil*, an eye, with the adjective *gorm*, blue.
6. How are the degrees of comparison formed?
7. What are the usual initial changes in verbs?
8. How many tenses in the indicative mood of the Irish verb?
9. How is the past tense of the regular verbs formed in the active voice?
10. How is the future tense, indicative mood, of regular active verbs formed?
11. Describe the difference between the verbs *is* and *tá*.
12. How many irregular verbs are there, and in what does their irregularity principally consist?
13. Conjugate the irregular verb chidhim or chim, I see.

14. How are adverbs formed?
15. What is the natural order of an Irish sentence?
16. When is the adjective placed before its substantive?
17. When does the adjective *not* agree with its substantive?
18. What peculiarity of construction is observable in the infinitive mood of Irish verbs?
19. What influence have prepositions on the initials of nouns when the article is prefixed; and on the initials of verbs when the relative is expressed or understood?
20. Parse the following sentence, and quote the grammatical rules which regulate its construction:—

Ni fhuil cineadh fo'n n-gréin le n-ab annsa ceart ina Eireannaigh.

*29th September*, 1853, 9 *o'clock, a.m.*

### ENGLISH LANGUAGE AND LITERATURE—*Examiner, George L. Craik, A.M.*

1. Characterize the poetry of Chaucer, and give an account of his principal works.
2. Characterize the poetry and poetical genius of Spenser.
3. Sketch the history of the English Drama down to the appearance of Shakespeare.
4. Point out the respects in which the dramatic writings of Shakespeare differ generally from those of his immediate predecessors.
5. Enumerate and characterize the principal English poets of the present century.

*29th September*, 1853, 2 *o'clock, p.m.*

### ENGLISH LANGUAGE AND LITERATURE—*Examiner, George L. Craik, A.M.*

1. Give an account of the poem called *The Visions of Piers Ploughman.*
2. Sketch the history of Scottish Poetry from the middle of the 14th to the middle of the 16th century.
3. Sketch the history of English Prose Literature from the middle of the 14th to the middle of the 16th century.
4. Enumerate in the order of time the principal English Poets from the middle of the 17th to the end of the 18th century; mentioning their most important works, or the species of poetry in which each is eminent.
5. Enumerate and characterize the principal English Historical Writers and their works down to the commencement of the present century.

1st *October*, 1853, 9 *o'clock, a.m.*

### MATHEMATICS—*Examiner, John Mulcahy, LL.D.*

1. Investigate Newton's formula for finding the sum of the $m^{th}$ powers of the roots of a given equation, when $m$ is less than the degree of the equation. Show also how Euler finds the sum of the powers for higher values of $m$.

2. If a complete cubic have two equal roots, find the relation which must be satisfied by the coefficients.

3. Assuming Sturm's general theorem, prove that when the degrees of the several functions descend regularly by unity, the number of pairs of imaginary roots equals the number of variations in the signs of the leading terms of the functions.

4. A and B engage in a match of play of such a nature, that he who first wins three games shall win the match. Supposing that A is just able to give his adversary one game, so as still to retain an even chance of gaining the match, investigate the probability that A will win the first game that is played for.

5. If $n$ be a whole number, prove $2 \cos. n x = (2 \cos. x)^n - n (2 \cos. x)^{n-2} + \frac{n.n-3}{2}(2 \cos. x)^{n-4} - \&c.$

6. Prove $\log. \cot. \tfrac{1}{2} x = \cos. x + \tfrac{1}{3} \cos.^3 x + \tfrac{1}{5} \cos.^5 x + \&c.$

7. If $u$ and $v$ be functions of $x$, find the expressions for $\frac{d u}{d v}, \frac{d^2 u}{d v^2}$, and $\frac{d^3 u}{d v^3}$, in terms of $\frac{d u}{d x}, \frac{d^2 u}{d x^2}, \frac{d^3 u}{d x^3}, \frac{d v}{d x}$, &c.

8. Develop $\log. (1 + x - x^2)$ by Maclaurin's theorem, as far as the third power of $x$.

9. Eliminate the arbitrary functions from the equation $z = \phi \left( x. \psi \left(\frac{y}{x}\right) \right)$

10. Reduce $\int \frac{d x}{(x^2 + a^2)^n}$ to $\int \frac{d x}{(x^2 + a^2)^{n-1}}$.

11. Find $\int \frac{(a' + b' \cos. x)\, d x}{a + b \cos. x}$

12. Integrate the equation $e^x\, d x + e^{-x} y\, dy = d y - y\, d x$.

13. Integrate the equation $x^2 \frac{d^2 y}{d x^2} - 3 x \frac{d y}{d x} + 4 y = x^m$.

14. Show how to find the complete integral and the particular solution of the equation $y - x \frac{d y}{d x} = f \left(\frac{d y}{d x}\right)$

15. Integrate the equation $\frac{d^2 z}{d x^2} = a^2 \frac{d^2 z}{d y^2}$.

*1st October*, 1853, 2 *o'clock, p.m.*

### MATHEMATICS—*Examiner, John Mulcahy, LL.D.*

1. Give Newton's investigation of the law of force, by which a semicircle may be described, the force being perpendicular to the diameter.

2. How does he find the law in the case of an ellipse, the centre of force being anywhere within the ellipse?

3. Find the whole area included within the evolute of an ellipse.

4. If a variable quadrilateral be inscribed in a circle, so that three sides pass through three given points in one right line, the fourth also passes through a fixed point in the same right line.

5. Prove that all conics, having both foci common, may be regarded as inscribed in the same imaginary quadrilateral.

6. If a parallelogram of given area be circumscribed to a given ellipse, find the locus of one of its angles.

7. Find the locus of the pole of a given right line with respect to a system of conics which have both foci common.

8. Prove Maclaurin's method of generating conics, and state the reciprocal theorem.

9. Find the expression for tan. $\frac{1}{2}$ area of a spherical triangle, in terms of two sides, and the included angle.

10. Supposing the earth spherical, determine the stereographic projection of the curve, which cuts all the meridians at a given acute angle, either pole being taken as the centre of projection, and the plane of the equator being the *primitive*.

11. Prove that the locus of those stars on the celestial sphere, whose right ascensions, at a given epoch, are not affected by the precession of the equinoxes, is a spherical conic.

12. If two surfaces of the second degree intersect in a plane curve, they will also intersect in another plane curve, real or imaginary.

13. Investigate the existence and position of the circular sections of central surfaces of the second degree.

14. If two planes make an infinitely small angle, and cut off equal volumes from a given solid, their line of intersection passes through the centre of gravity of the area of the section made by either plane.

15. Find the envelope of a plane which cuts off a given volume from a given ellipsoid.

*27th September*, 1853, 9 *o'clock, a.m.*

### MECHANICS—*Examiner, George F. Shaw, F.T.C.D.*

NOTE.—The numbers subjoined to the questions, denote the relative value of the corresponding answers.

1. A cube rests with one of its faces on an inclined plane, whose elevation is $\epsilon$. Draw to the centre of gravity of the cube, any line representing a force which is just sufficient to overcome friction, and push the cube up the plane.

   (*a*) The locus of the variable extremity of this line is a fixed right line. By means of it show—

   (*b*) that the minimum force which can move the body, makes with the plane an angle equal to the slipping angle ($\phi$), and that its value is W sin. $(\epsilon + \phi)$;

   (*c*) that the horizontal force which moves the cube is W tan. $(\epsilon + \phi)$, and—

   (*d*) that the general expression for the force is—

   $$W \frac{\sin. (\epsilon + \phi)}{\sin. (\theta - \phi)},$$

   where $\theta$ is the angle between the force and the perpendicular to inclined plane.

   (*e*) Find also, by means of the above locus, the force which will just move the cube while it increases or diminishes the pressure on the plane in a given ratio, and—

   (*f*) Show that the angle of maximum draught on a horizontal plane is $\phi$. (Six.)

2. State and prove Guldin's theorem. This theorem, in the case of volumes, may be considerably generalized in respect of the conditions which determine the motion of the generating plane. (Four.)

3. (*a*) A chain hangs freely between two points, and is loaded irregularly along its length. At its lowest point draw a tangent, and, on it, measure from the lowest point a distance which will represent the horizontal tension. From the extremity of this line draw various right lines to meet the vertical line, which passes through the lowest point. The tension at any point of the chain is represented by that intercept which is parallel to the tangent at the point. (One.)

   (*b*) In the suspension bridge of greatest strength, that is, in which the aggregate section of the chains bears a fixed proportion, $m$, to the strain they have to bear, show that if the weight of the rods by which the roadway is hung from the chains, be neglected, the equation of the curve assumed by the chain is—

   $$y = k \log._{\epsilon} \sec. k' x.$$

Where $k$ and $k'$ are functions of—
$\mu_1$ = weight of unit-length × 1 inch section of chain;
$\mu_2$ = weight of unit-length of roadway;
$c$ = horizontal tension; and
$\tau$ = tenacity of chain, per square inch of section. (Five.)

4. (*a*) State the principle of virtual velocities, and apply it to the following examples:— (One.)

(*b*) Deduce the six conditions of equilibrium of a rigid system perfectly free. (One.)

(*c*) Two weights, P and P, are attached to the ends of an inextensible string which passes over a smooth pulley. One of these weights hangs vertically, the other rests on a smooth vertical curve lying in the plane of the string. Show that if the second weight is supported at whatever point of the curve it be placed, the curve must be a hyperbola. (Two.)

5. (*a*) When a free point is submitted to any number of forces, their resultant may at every instant be resolved into two components, one of which (the tangential) $= \dfrac{dv}{dt}$, is wholly engaged in altering the velocity, and has no effect on the path; the other (the centripetal) $= \dfrac{v^2}{\rho}$, is wholly employed in altering the path, and has no effect on the body's velocity. Prove this. (One.)

(*b*) If the body be not free, but constrained to move on a surface, the normal component is no longer $= \dfrac{v^2}{\rho}$, but these quantities are to each other in the inverse ratio of the sines of the angles which the perpendicular to the surface makes, respectively, with the normal component and with the radius of curvature. (One.)

(*c*) Hence, show that if no force acts on the body other than its friction against the surface, and the resistance of a medium, the body will describe a path which is the shortest possible on the surface between each two of its points. (Two.)

(*d*) If the body be still further constrained to move on a smooth curve, the reaction of this curve compounds with the normal component of the resultant, a force equal and opposite to the centripetal force $\dfrac{v^2}{\rho}$ before mentioned. (One.)

(*e*) Confirm this result by proving, from the equations of motion of a body on a smooth curve, to wit,

$$m\frac{d^2x}{dt^2} = \mathrm{X} - \mathrm{P}\cos.\tilde{\omega}\,; \quad m\frac{d^2y}{dt^2} = \mathrm{Y} - \mathrm{P}\cos.\tilde{\omega}'\,; \quad m\frac{d^2z}{dt^2} = \mathrm{Z} - \mathrm{P}\cos.\tilde{\omega}''\,;$$

that the pressure on the curve (P), is made up of two components, one the resultant of X, Y, Z, estimated along the normal to the path, the other $m\dfrac{v^2}{\rho}$ the body's centrifugal force. (Two.)

6. (*a*) From the rectangular equations of motion of a free body *in plano*, deduce the polar equations—

$$\frac{d^2r}{dt^2} - r\left(\frac{d\theta}{dt}\right)^2 = -\mathrm{P}; \qquad 2\frac{dr}{dt}\,\frac{d\theta}{dt} + r\frac{d^2\theta}{dt^2} = \mathrm{T}\,; \qquad \text{(Two.)}$$

P being the radial component of the applied forces, and T the component perpendicular to radius.

(*b*) Give the geometric interpretation and an *a priori* proof of these two equations. (Two.)

(*c*) When the applied force is wholly central, the equation of the orbit may be written—

$$\frac{d^2u}{d\theta^2} + u - \frac{\mathrm{P}}{h^2u^2} = 0. \qquad \text{(One.)}$$

7. A smooth ball ($m$) is placed in a smooth tube, and at a distance ($a$) from one extremity. Round this extremity the tube revolves. Find the velocity of the ball along the tube, and the angular velocity of the tube corresponding to each position of the ball in the tube. (Four.)

8. The force being central and varying inversely as the square of the distance, prove that the orbit is a focal conic, and show how its elements are to be determined in terms of the initial circumstances of the motion. (Three.)

9. Defining $u$ (the eccentric anomaly in an ellipse) by the equation—

$$r = a\,(1 - e\cos.u.)$$

Prove that— (One.)

(*a*) $$t\frac{\sqrt{\mu}}{a^{\frac{3}{2}}} = u - e\sin.u,$$

and— (One.)

(*b*) $$\tan.\tfrac{1}{2}\theta = \sqrt{\frac{1+e}{1-e}}\tan.\tfrac{1}{2}u,$$

where $\theta$ is the true anomaly given by equation—

$$r = \frac{a\,(1-e^2)}{1 + e\cos.\theta}$$

10. If collisions occur among a number of masses quite devoid of elasticity, the total *vis viva* lost, is the vis viva due to the destroyed velocities. (Two.)

Total value of questions on this paper—Forty-three.

*27th September*, 1853, 2 *o'clock, p.m.*

### Astronomy and Optics.—*Examiner, George F. Shaw, F.T.C.D.*

Note.—The numbers subjoined to the questions denote the relative value of the corresponding answers.

1. (*a*) Find the angle subtended at a planet by two places on the same terrestrial meridian, and (*b*) deduce, hence, the apparent magnitude of the whole earth, as seen from the planet. (Two.)

2. The star α Lyræ, which, now, in our latitude, passes the meridian within a few degrees of the zenith, and 12 hours after is near the horizon, will, in 10,000 years, be nearly stationary in altitude. How are we enabled to predict this? (One.)

3. (*a*) What are the observations which (read by the light of the Copernican hypothesis) enable us to measure the orbit, and predict the positions of the planets? (Two.)
   (*b*) The occasional retrograde and stationary appearances of the planets are direct consequences of the above hypothesis. (One.)
   (*c*) Express the periodic time of an inferior or superior planet, or of the moon, in terms of the immediate data of observation. (Two.)

4. At a given day, and in a given terrestial latitude, find—
   (*a*) The time of sunrise. (One.)
   (*b*) The time when the sun is due east. (One.)
   (*c*) The time when it is at a given altitude. (One.)
   (*d*) The time of rising of any given star. (One.)

5. (*a*) In an eclipse of the moon, express the diameter of the section of the earth's shadow at the moon, in terms of the data afforded by the tables, or by direct observation. (Two.)
   (*b*) Calculate hence the times of beginning and ending of the eclipse. (One.)
   (*c*) Calculate also the greatest distance of the node from conjunction, at which an eclipse can happen. (One.)
   (*d*) Make a similar calculation for the sun. (One.)
   (*e*) Why do eclipses not happen always at the same time of the year? (One.)

6. Prove that the longitudinal and lateral aberrations of a spherical reflector are respectively—

$$\frac{d^2x^2}{r^3} \text{ and } \frac{d^2x^3}{\delta r^3} \qquad \text{(Two.)}$$

where $x$ is the semi-aperture, $r$ the radius, $d$ the distance of the centre from the point in which the axis is cut by the reflected ray nearest to it, and $\delta$ the distance of the conjugate focus from the surface.

7. Show that in a spherical refractor the longitudinal aberration of rays parallel to the axis is—

$$\frac{-x^2}{2(m-1)f} \qquad \text{(Two.)}$$

where $f$ is the focal length, and $m$ the index of refraction.

8. A fish describes under water a portion of a vertical circle, the centre of which circle is at the surface of the water. To a bird over-head, what curve does it seem to describe? (One.)

9. Reduce the determination of the minimum dispersion in a prism to the solution of a cubic equation. (Two.)

10. (*a*) Show that the natural measure of the dispersive power of a substance is a function of its index of refraction only. (Two.)
    (*b*) Detail the process, founded on this fact, by which the former co-efficient may be evaluated. (One.)

11. In a common astronomical telescope estimate the field of view defined by the axes of the extreme pencils transmitted by the eye-glass, and show that it is an arithmetic mean between the bright part and the entire extent of the visible field. (Two.)

12. (*a*) Required an experimental method of determining the magnifying power of a given telescope. (One.)
    (*b*) The magnifying power can be also known *a priori* from the focal lengths and the intervals of the various glasses. Indicate the method of calculation. (Three.)

Total value of questions in Astronomy—Eighteen.
Total value of questions in Optics—Fourteen.

*28th September*, 1853, 9 *o'clock, a.m.*

### CHEMISTRY—*Examiner, Edmund Ronalds, Ph. D.*

1. How much aqueous vapour will be contained in a cubic foot of air, the temperature of which is 50° Fahrenheit, when the dew point is at 32° Fahrenheit?

N.B.—1,728 cubic inches = 1 cubic foot.
100 cubic inches of aqueous vapour in the state of maximum density at 32° Fahrenheit will weigh 0·136 grains.

2. How many grains of hydrogen gas should be obtained by dissolving one ounce of zinc in dilute sulphuric acid, and what volume will the hydrogen occupy?

N.B.—The equivalent of *Zn* is 32·6
" " " H is 1·
1 oz. = 480 grains.
100 cubic inches of H at 32° F., weigh 2,162 grains.

3. In a neutral salt, what relation do the equivalents of acid bear to the number of equivalents of oxygen in the base?

4. If gallate of lead have the following composition:—$C_7 HO_3, 2PbO$, what is the chief argument for assuming the acid bibasic?

5. If the binary theory of the constitution of salts be adopted, what hypothetical salt radicals will have to be assumed to account for the modifications of phosphoric acid?

6. In what atomic proportions should the ingredients be mixed for obtaining the greatest projectile force in gunpowder, and what are the products which result from the explosion of the mixture?

7. What are the chief sources of nitrate of potassa, and what system of lixiviation should be pursued in order to obtain from a mixture of soluble and insoluble salts, the entire or greater portion of the soluble ingredients, with the least expenditure of water and labour?

8. What are the products formed, according to P. Thenard, when phosphide of calcium ($PCa_3$) is brought into contact with water?

9. What is the generally received opinion touching the composition of bleaching powder, and how is its action explained?

10. What is the theory of the reduction of lead ore in the reverberatory furnace, and by what process is the silver extracted from the argentiferous metal?

11. How is the bichloride of platinum obtained, and for what purposes employed in analytical chemistry?

12. How would you ascertain the value of a specimen of fuel upon Berthier's plan?

13. What are the characteristic tests for the following acids and bases:—

| ACIDS. | BASES. |
|---|---|
| Sulphuric, | Potash, |
| Hydrochloric, | Alumina, |
| Oxalic. | Peroxide of iron, |
| | Oxide of copper, |
| | Oxide of silver. |

14. How is the ferricyanide of potassium obtained, and what is the chemical nature of the process?

15. The composition of the lowest sulphuret of antimony being—

| | |
|---|---|
| Antimony, . | 72·8 |
| Sulphur, . . | 27·2 |
| | 100 |

what will be the atomic relation of the elements in the compound?

| | |
|---|---|
| N.B.—Equivalent of Antimony, . | 129 |
| " Sulphur, . | 16 |

16. What is the process for the ultimate analysis of organic substances?

17. Having ascertained the elementary composition of an organic substance in 100 parts, what further experiments are requisite in order to establish its rational formula?

18. How, upon Liebig's view of the formation of organic compounds in plants, can you explain the production of oxalic and malic acids from the elements of carbonic acid and water?

Oxalic acid, $C_2 O_3$, HO.
Malic acid, $C_8 H_4 O_8$ 2HO.

19. Upon what chemical affinities is the art of dyeing founded; and how does the application of indigo, as a dye, differ from that of most others?

20. How do you apply Scheele's test for hydrocyanic acid?

*29th September*, 1853, 9 *o'clock, a.m.*

### ZOOLOGY—*Examiner, Dr. Dickie.*

1. Describe the structure of a digit in the higher Vertebrata; state any relation between such structure and the permanency of each; illustrate also by reference to examples.

2. State the manner of life of the Sloths, and describe the peculiarities of their organization in harmony with their habits.

3. Refer the following to their respective classes and orders, and state their general

characters, viz., Simiadæ, Pteropidæ, Balænidæ, Cervidæ, Phasianidæ, Crocodilidæ, and Squalidæ.

4. State and define the classes and orders to which the following belong, viz., Papilio, Apis, Cancer, Balanus, Lumbricus, Ostrea, and Echinus.

5. State the distribution of the Elephantidæ, Didelphidæ, and Monotremata.

### Botany.

1. Describe the order of development of the parts of a leaf and of its tissues.

2. Explain the difference between parasites and epiphytes; describe peculiarities in the organization of any of them, and illustrate by reference to examples.

3. State the general principles on which you would explain the nature of the different parts of the flower and their relative position in reference both to regular and irregular cases; illustrate by reference to examples.

4. State the general characters of the Compositæ; mention the sections into which they have been divided, and give examples.

5. What useful plants are usually comprehended under the term Cerealia? mention their place in the system of classification, and state their distribution.

*29th September*, 1853, 2 *o'clock, p.m.*

## Elements of Geology and Physical Geography.

*Examiner, Frederick M'Coy, F.G.S.L., Hon. F.C.P.S.*

1. State the distinguishing characters of aqueous and of igneous rocks.

2. State the particulars in which syenite differs from granite and from greenstone.

3. Illustrate by diagrams the terms "anticlinal" and "synclinal axes," in several flexures of strata, keeping the relations between the scarp and talus sides of the flexures and the centre of disturbance indicated by the theory of Professor Rogers. Also, show the difference between valleys of elevation and denudation.

4. Mention some of the genera of fossils, which would enable you to discriminate with certainty between rocks of the Tertiary, Cretaceous, and Palæozoic ages.

5. Write down in order the subdivisions of the oolitic series.

6. What do you understand by "river basins?" How would you divide an ordinary map so as to show the river basins?

7. Give the elevation above the sea level of a few of the principal lakes of North America, and the depression below the sea level of a few of those in Asia Minor.

8. What is the most general cause of winds? Explain the production of the "land and sea breezes," and describe the direction and causes of the "trade winds."

9. What is meant by isothermal, isotheral, and isochimenal lines? How are maps of them formed?

*30th September*, 1853.

## Logic—*Examiner, Rev. William Fitzgerald, D.D.*

1. Explain and remark on Mill's analysis of the ultimate foundation of our belief in the permanence of the laws of nature.

2. Compare mathematical and moral reasoning, noticing the chief points of difference, and their respective advantages and disadvantages as disciplines of the mind.

3. Describe, and give instances of the three kinds of false philosophy enumerated by Bacon—the sophistical, the empirical, and the superstitious.

4. Of what sort of induction is Bacon speaking when he says: "Uno eodemque mentis opere illud quod quæritur et invenitur et judicatur?"

5. Does the connotation of the term "true believer" vary according to the faith of the person who uses it—as, *e. g.*, in the mouth of a Christian and a Mahometan?

6. "Cæsar was a tyrant, therefore he deserved death." What major premise is *necessary* to complete the above syllogism?

7. Whence arises the difficulty of proving a negative? and in what cases is it easier to prove the negative than the affirmative?

8. Whence has arisen the popular prejudice that all general truths have exceptions?

9. Explain the meanings of the word "tendency?"

*30th September*, 1853, 2 *o'clock, p.m.*

## Metaphysics—*Examiner, Rev. William Fitzgerald, D.D.*

1. Give an account of M. de Biran's theory of the origin of the idea of a cause, and of Cousin's criticism upon it.

2. How far does Cousin admit, and how far except against Locke's definition of knowledge?

3. If Locke's account of the motive which *immediately* determines the will he correct, what would be the state of mind of a martyr at the stake?

4. What, according to Cousin, is the general source of all Locke's errors?

5. Upon what grounds does Kant deny that our idea of pure space is an abstraction from experience?

6. What sophism does Kant suppose to be involved in the disputes about the infinite divisibility of matter?

7. Compare the systems of Kant and Locke as developed by Cousin.

1st October, 1853, 9 o'clock, a.m.

### JURISPRUDENCE—*Examiner, Professor Heron.*

A.—1. Define Jurisprudence as a science and as an art.

2. What are the natural rights of man?

3. Define Freedom and Slavery.

4. What element diminishes the productiveness of slave labour?

5. State the four progressive changes of condition through which the labouring cultivators of land in Europe have passed, from the period of absolute slavery to the present time.

6. When was villeinage finally extinguished in England?

7. A particular form of serfdom existed in Scotland up to the year 1799.

8. What ought to be the first legislative steps towards the abolition of slavery in the United States of America.

9. What are the original titles to property? In the development of property there is a tendency to give the individual possessor the absolute disposal of his land. Illustrate this principle by historical examples.

B.—1. Upon what principle is based the right of paupers to subsistence raised by taxation; and under what function of government should a poor law be classified?

2. What is the use of the workhouse system in contradistinction to the system of out-door relief?

3. The relief works in Ireland since the famine of 1846–1847 have been unproductive. What function did they really discharge?

C.—1. According to Lord Bacon, obscurity in law derives its origin from four things.

2. What does Lord Bacon state to be the foundation of private law? To what portion of the law only is his definition strictly applicable?

3. There are two modes of framing new statutes; which is the better?

D.—1. According to Bentham there are four conditions of a code.

2. What is the first principle of division in a code?

3. In the reform of the Statute Law, as proposed by Lord Bacon, there are four objects to be kept in view.

4. What statesman first attempted to carry out the reform of the Statute Law according to the method proposed by Lord Bacon?

E.—1. What are juridical relations?

2. Savigny divides rights into four classes.

3. How does Savigny characterize custom?

4. Ortolan has stated three reasons to show that the codification of law in France has been injurious to its cultivation as a science. How should the codification of the law be conducted in order to avoid the danger of checking the natural expansion of law to the wants of society?

5. There are two classes of actions which show themselves in a pre-eminently efficacious manner in the respects in which custom is important.

6. In the development of society law becomes twofold.

F.—1. Sir James Mackintosh states the natural order to be followed in a treatise on Jurisprudence.

2. What was the defect in the method of Grotius; and by whom was it perceived and supplied?

3. What are the principal errors of Montesquieu?

4. Almost all the relative duties of human life arise out of two great institutions.

5. Define the term, "constitution of a state."

6. Sir James Mackintosh notices a constant source of error in reasoning upon the principles of politics.

7. Sir James Mackintosh sketches a course of Criminal Jurisprudence.

1st October, 1853, 9 o'clock, a.m.

### POLITICAL ECONOMY—BANKING AND CURRENCY—*Examiner, Professor Heron.*

1. Between what years was the effect of the discovery of the mines of America, in reducing the value of silver, completed?

2. What was the proportion between the respective values of gold and silver—
    (*a.*) Before the discovery of the mines of America?
    (*b.*) In the year 1650?

3. What is now the mint price of gold, and what is the bank price of gold in England?

4. Coins may be debased in three different ways.

5. In what reigns, severally, were shillings, crown pieces, half-crown pieces, guineas, and sovereigns, first coined in England?

6. What is a banker?

7. The business of banking may be arranged in three principal divisions.

8. The disposable means of a bank consist of four distinct portions.

9. What circumstances gave rise to the business of banking in England?

10. The bills generally presented to a bank for discount may be divided into five classes.

11. Explain the terms "short loans" and "dead loans," as used in the business of banking.

12. What profit does a bank make upon the notes in circulation?

13. What is the usual method of making a remittance from one country to another?
14. When is the exchange said to be unfavourable to a country?
15. When is the real exchange at par?
16. How does an unfavourable state of the real exchange operate—
    (*a.*) On exportation?
    (*b.*) On importation?

*1st October*, 1853, 2 *o'clock, p.m.*

### POLITICAL ECONOMY—*Professor Heron.*

1. The trade of the corn merchant is composed of four distinct branches. Prove that the interest of each coincides with that of the mass of the people.

2. "Wherever the law leaves the trade in corn free, it is of all commodities the least liable to be engrossed or monopolized by the force of a few large capitalists."—(*Smith's Wealth of Nations*, B. iv., c. v.) Is this proposition true? If so, how is it to be proved? If not true, how is it to be disproved?

3. Whether does the free importation of foreign commodities increase or diminish the general demand for labour in a country? Prove the proposition which you adopt.

4. State briefly the advantages of international exchange. How does foreign commerce affect the division of labour?

5. When two countries trade together in two commodities, how will the exchange value of these commodities relatively to each other adjust itself? And within what limits will the proportions vary in which the two commodities will be interchanged?

6. What is a decimal currency? Change the present currency of England into a decimal currency, mentioning what coins you propose to retain, what coins you propose to abolish, and what new coins will be necessary.

7. What is the principle of the metayer system? What are its effects on the condition of the peasantry, and on the efficiency of labour?

8. What is Communism? And what is Socialism? What are the principal features in the doctrines of St. Simon and Fourier? What are the objections to an equality and to a community of goods?

9. Mr. Mill says—"This proportion" [the landlord's share under the metayer system], "is usually one-half. There are places, however, such as the rich volcanic soil of the province of Naples, where the landlord takes two-thirds, and yet the cultivator, by means of an excellent agriculture, contrives to live. But whether the proportion is two-thirds or one half, it is a fixed proportion, not variable from farm to farm, or from tenant to tenant. The custom of the country is the universal rule; nobody thinks of raising or lowering rents, or of letting land on other than the customary conditions. Competition, as a regulator of rent, has no existence."—(*Political Economy*, vol. i., p. 296.) Is this proposition true? If so, how is it to be proved? If not true, how is it to be disproved?

10. The terms which, in the Greek and Latin languages, denote *a colony*, express certain radical differences.

11. For what alleged benefits to the home country, and to the colonists, have colonial products been admitted at a lower rate of duty than foreign products? State the real losses.

12. Adam Smith states the only method in which the policy of Europe has contributed to the grandeur of the colonies of America.

13. Did the monopoly of the colonial trade raise or lower the general rate of profits in England?

14. The greatest advantage, next to the dexterity of the workman, derived from the minute division of labour, which takes place in modern manufacturing industry, is not noticed by Adam Smith.

15. Enumerate the principal instances in history where a militia has been defeated by a standing army.

16. How does a regulated company differ from a joint stock company? What regulated companies were in existence at the time when Adam Smith wrote?

17. Adam Smith mentions the trades which it is possible for a joint stock company to carry on without an exclusive privilege. What others has the progress of society added to his list?

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## EXAMINATION FOR DIPLOMA IN ELEMENTARY LAW.

*27th September*, 1853, 9 *o'clock, a.m.*

### LAW OF REAL PROPERTY, AND PRINCIPLES OF CONVEYANCING—*Examiner, Dr. Lawson.*

1. Blackstone distributes *things* into two kinds. What are they? Is the distinction perfect?
2. Define an incorporeal hereditament.
3. How may a right of way be created, and how extinguished?
4. Explain the terms, "several fishery," "free fishery," and "common of piscary."
5. What is the distinction between "an annuity" and a "rent-charge?" How may they respectively be created, and how extinguished?
6. Enumerate the different kinds of rents.
7. What is the meaning of the word "rent," as used in the 2nd section of the 3 & 4 William IV., cap. 27?

8. What estates are now created in land by the use of the following words, in deeds and wills respectively—

To A and his heirs.
To A.
To A and his heirs male.
To A and the heirs of his body.

9. What is the distinction between conditions precedent and conditions subsequent?
10. Define a vested remainder and a contingent remainder.
11. Enumerate the various modes of conveying real property. Is there now any, and if so, what distinction between the various modes of assurance?
12. State the various modes in which a lease may be surrendered.

*27th September*, 1853, 9 *o'clock, a.m.*

### JURISPRUDENCE—*Examiner, Professor Heron.*

1. What is the distinction between Ethics and Jurisprudence?
2. M. Lerminier states the science of law may be treated in four ways.
3. The Italian civilians of the middle ages are divided into three schools.
4. When did the Canon Law obtain its principal influence?
5. A law, in its most extensive signification, involves two essential properties.
6. What is the most philosophical arrangement of the component parts of law?
7. In the most extensive scientific acceptation, what does the term law signify?
8. Prove that the term *law* is no less applicable to the phenomena of mind, than to the phenomena of matter.
9. There are two separate and distinct principles as the basis of the moral law.
10. Name the principal philosophers of the Utilitarian School.
11. In what is the foundation of law to be sought?
12. From the writings of the most eminent jurists of modern times, what appears to have been their primary object to discover?
13. Cicero recognised the distinction between Ethics and Jurisprudence.
14. Is the doctrine of an original social compact correct? If not, why not?
15. Coercive law may be viewed in two ways.
16. Define the terms, *Common Law; Statute Law; Equity; The Civil Law; Municipal Law; Jus Naturale; Jus Gentium; Jus Feciale.*

*27th September*, 1853, 2 *o'clock, p.m.*

### EQUITY—*Examiner, Dr. Lawson.*

1. What is the ground of the jurisdiction exercised by Courts of Equity in decreeing the specific performance of agreements?
2. What discretion does a Court of Equity exercise in granting or withholding this relief?
3. Are there any exceptions to the maxim in Equity, that what is agreed to be done is considered as done? If so, mention them.
4. How does Equity control the operation of the statute of frauds upon contracts relating to land?
5. In what manner does a Court of Equity compel a mortgagee in possession to account?
6. What are implied trusts, and what are resulting trusts? Give some instances of them.

*27th September*, 1853, 2 *o'clock, p.m.*

### COMMON LAW AND CRIMINAL LAW—*Examiner, Dr. Lawson.*

1. Blackstone mentions two kinds of property in chattels personal.
2. What is a *chose in action?* How does the law restrict the power of its proprietor, and what is the reason of that restriction?
3. Mention some rights which may be appropriated by occupancy.
4. What is the effect of marriage on the real property, personal property, and choses in action of the wife, in case no settlement be made?
5. What is necessary in order to constitute a valid contract?
6. What is a contract of bailment?
7. Debts are of three kinds; state their nature and incidents.
8. *Actio personalis moritur cum personâ.* Explain this maxim. How has it been affected by the provisions of our Statute Law?
9. What is the distinction between public and private wrongs, in respect of the mode of redressing them, the evidence applicable to them, and the consequences to the wrong-doer?
10. What is the true end of punishment?
11. Explain the terms, "principal" and "accessory," and state the different kinds of each.
12. What is the distinction between "felony" and "misdemeanor?"

*27th September*, 1853, 2 *o'clock, p.m.*

### CIVIL LAW—*Examiner, Professor Heron.*

1. To what portion of the English legal system do the *actiones legis* correspond?
2. To whose custody were these *formulæ* intrusted, and for what reason?
3. What was the Hortensian law?

4. What was the jus honorarium?

5. The Imperial Constitutions were successively collected into four different bodies.

6. A characteristic of a peculiar school of the Greek Philosophy forms a chief distinctive feature in the writings of the Roman lawyers.

7. What was the first step of Justinian towards the codification of the Roman Law?

8. What was the corpus juris civilis?

9. What is the division of law in the Institutes of Justinian? Weisembech has neatly expressed this classification.

10. What does the jus rerum include?

11. What is Ulpian's definition of justice?

12. The jurisdiction of the prætor was divided into three portions.

13. Justinian divides things into five classes.

14. Explain the term *specificatio*.

15. Define a servitude.

16. What is the leading principle in the law of real servitudes?

## HONOR EXAMINATION OF CANDIDATES PASSED FOR DIPLOMA IN ELEMENTARY LAW.

*29th September*, 1853, 9 *o'clock, a.m.*

LAW OF PROPERTY AND PRINCIPLES OF CONVEYANCING—*Examiner, Dr. Lawson.*

1. What is the common law right of emblements, and how has it been altered by recent legislation?

2. What constitutes a fixture, and what is the general rule as to the right to fixtures between landlord and tenant?

3. What is the rule as to trade and agricultural fixtures between landlord and tenant?

4. What is the rule as to the time within which fixtures must be removed, and what is the reason of that rule?

5. What is the rule as to fixtures between representative of tenant for life and remainderman, and between heir and executor?

6. What is the effect of receipt of rent by a landlord, after service of a notice to quit?

7. When is a demand of possession necessary before bringing an ejectment?

8. After the expiration of a lease, what are the landlord's remedies for recovery of the rent due before the determination of the lease?

9. What is meant by adverse possession, and how does the law now stand respecting it?

10. Enumerate the kinds of property privileged from distress for rent by the common law.

11. If a landlord distrains for rent, and either voluntarily abandons the distress, or is obliged to abandon it by reason of an informality in the distress, can he distrain again for the same rent?

12. Can a landlord distrain the goods of a stranger upon his tenant's land, if he assented to their being placed there; if he does distrain them under such circumstances, has the stranger any and what remedy?

*28th September*, 1853, 9 *o'clock, a.m.*

JURISPRUDENCE—*Examiner, Professor Heron.*

A

1. Jurisprudence, as it considers the natural rights of men, may be arranged in four great divisions. Place these in chronological order, and explain your reasons for such an arrangement.

2. There are three phases in the development of law. Illustrate them from the development of the law of evidence.

3. In reference to the measure of punishment, what idea of justice appears first developed amongst all savage tribes?

4. Mention the three classes of human actions which do not come within the cognizance of justice.

5. Modern jurists, in their investigations of the law of nature, have been misled by three principal errors.

6. What are the dates of the publication of the great works of Grotius, Puffendorf, and Wolf?

7. Mr. Reddie points out the refinement in the science of Jurisprudence denoted by the term *philosophy of law* as opposed to the jus naturæ.

8. In the infancy of civilization how do the private disputes of individuals appear to be peaceably determined?

9. Kant states that property may be acquired in a threefold manner.

10. Savigny notices a principal danger in the compilation of a complete statute book, or code. How is this to be avoided?

11. In the progressive development of the people two organs work upon the cultivation of law.

### B

1. Define copyright. Upon what principle is based the right to this species of property? Was copyright known to the Greeks or Romans?

2. Should copyright be permitted to exist—
   (*a*) in abridgments?
   (*b*) in translations?

3. State the principal reforms required in the law of copyright.

4. What is the use of a register of deeds?

5. Upon what principles is based the right of inheritance.

6. What are the objections severally to the English and French laws of inheritance.

7. In legislation how far should absolute freedom of bequest be limited.

### C

1. Define the terms *evidence* and *proof*.

2. What is pre-appointed evidence?

3. What is secondary evidence?

4. What are the causes for which exclusion of evidence is always proper?

5. Define direct and circumstantial evidence.

6. What is the cause of belief in testimony?

7. Bentham enumerates the defects of the English and of the Roman laws in regard to the punishment of testimonial falsehood.

8. What is the use of interrogation, considered as a security for the trustworthiness of testimony?

9. How can you employ the epistolary mode of interrogation to the best advantage.

*28th September*, 1853, 2 *o'clock, p.m.*

## EQUITY—*Examiner, Dr. Lawson.*

1. What is the general principle on which a Court of Equity acts in marshalling funds?

2. If a party, having two estates, is indebted by judgment, and settles one of the estates for a valuable consideration, with a covenant against incumbrances, and subsequently acknowledges other judgments, what are the respective rights of the persons claiming under the settlement, the prior, and subsequent judgment creditors, as against the settled and unsettled estates, respectively.

3. What are the rights of a tenant for life, and a tenant in tail, respectively, if they pay off an incumbrance affecting the estate?

4. If the tenant for life, paying off an incumbrance, procure it to be released or otherwise extinguished, what are his rights with respect to that incumbrance?

5. What is the effect at law, and in equity, of a judgment creditor releasing part of the lands charged with his judgment?

6. What is the effect of a person entitled to a rent-charge issuing out of two estates, releasing one of those estates?

7. Has there been any recent legislation on the subjects adverted to in the last two questions?

8. A father, by a post nuptial agreement, undertakes to make a certain provision for his child, who had been previously married, and afterwards refuses to perform this agreement, will a Court of Equity decree a specific performance of the agreement?

*28th September*, 1853, 2 *o'clock, p.m.*

## COMMON AND CRIMINAL LAW—*Examiner, Dr. Lawson.*

1. Can the acceptance of a security, of equal degree, for a smaller sum, be pleaded in an action for the larger sum?

2. Does it make any difference if the security accepted he a negotiable one?

3. If a person finds property, and converts it to his own use, is he civilly or criminally responsible?

4. On what grounds are covenants in restraint of trade void, and within what limits does the law allow them? Give some instances of valid ones.

5. What is the general law as to acquiring a title to a chattel from a person who has himself no title to it?

6. Is there any exception to this rule?

7. What is the point decided in *Godsall* v. *Boldero*, and is the converse of that case law?

8. When an article is warranted, and the warranty is not complied with, what course may the vendee adopt?

9. If a clerk or servant be wrongfully dismissed before the expiration of the time for which he was hired, what remedies are open to him?

10. On what principle is a husband held liable on contracts made by his wife, and what is the limit of that liability?

11. Is it any offence for workmen to combine for the purpose of raising their wages?

12. Is it an offence for workmen to combine for the purpose of persuading other workmen to leave their employment with their masters, in order to have their wages raised, if no threats or intimidation be used?

*28th September*, 1853, 2 *o'clock, p.m*

CIVIL LAW—*Examiner, Professor Heron.*

A. 1. What Roman institutions survived the Anglo-Saxon conquest of England?
2. From what portion of the Civil Law are uses derived? From what example was borrowed the idea of the writ of subpœna returnable into Chancery?
3. Define bailment. State the definitions which Lord Chief Justice Holt borrowed from the Civil Law, in *Coggs* v. *Bernard.*
4. The consolidation of the law under Justinian effected a remarkable change with respect to the *Jus Prætorium.* Mention an analogous feature of the recent law reforms in New York.
5. From what portion of the Civil Law is derived the equitable doctrine of Injunctions?
6. To what is *usufructus* analogous in the law of England?

B. 1. Upon what principle of Natural Law are obligations *ex delicto* founded?
2. What was the *condictio indebiti?* Mention a particular case in which an equitable defence arose to such an action.
3. Explain the doctrine of *imputatio.* What place has it in the law of England?
4. Explain the species of *novatio* called *delegatio.*
5. What difference in the law of procedure existed between the Roman *compensatio* and the English *set-off?*
6. There are four species of *maleficia* in the Roman law.

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## EXAMINATION FOR DIPLOMA IN AGRICULTURE.

*20th September*, 1853, *forenoon.*

SCIENCE OF AGRICULTURE—*Examiner, Professor Murphy.*

1. Name the more obvious "organs" of an endogenous plant, and describe shortly the office of each organ.

2. Describe the process of the vegetation, nutrition, and growth of an endogenous plant.

3. If 200 grains of wheat plant (say 100 grains of the seed and 100 grains of straw, each in the ordinary state of dryness) be burned with access of air, what will be the amount of ash, of what ingredients composed, and in what proportion.

4. How may agricultural plants be classified with reference to the composition of their ash?

5. State your views as to the food of agricultural plants.

6. Give a classification of soils, with a definition of each of the classes.

7. Mention some of the more important physical properties of soils, and describe some simple means by which such properties may be estimated.

8. Give your views on the subject of meteorological influence on agriculture.

9. How does a superfluous amount of water affect an agricultural soil?

10. Name the proportions of the more valuable ingredients in a few of the more important of organic manures.

11. Do the same with respect to mineral manures.

12. What takes place when a mass of organic manure lies exposed to the action of the weather?

*20th September*, 1853, *afternoon.*

PRACTICE OF AGRICULTURE—*Examiner, Professor Murphy.*

1. Give the details of draining and deepening a wet shallow soil. State the considerations which would influence you in determining the depth and distance of the drains, and the nature of the draining material.

2. Under what circumstances would you consider shelter necessary? and when necessary, how would you effect it?

3. Describe the process of irrigation.

4. Give the preparation of a piece of exhausted foul stubble land for Swedish turnips, and the culture of that crop.

5. What is meant by a good wheat soil? Detail what you consider the best mode of cultivating wheat.

6. Do the same as regards flax.

7. Give a tabular view of the more important of the agricultural crops, showing the kind of soil, place in the rotation, time of sowing, quantity of seed, and average amount of produce of each, on fair land well cultivated.

8. Name the character and qualities of the more important of the natural grasses and forage plants.

9. What are the kinds and proportions of the grasses and clovers which you would use in alternate husbandry, and also when laying down a good loam to permanent pasture?

10. Detail what you consider to be the best practice in the rearing of calves, the feeding and management of milch cows, and the fattening of cattle.

11. Name the more important of the diseases to which agricultural crops are liable, the apparent cause of the disease, and the best means of preventing injury therefrom.

12. Name the insects, to the attacks of which farm crops are most liable, with the best means of preventing injury therefrom.

*21st September*, 1853, *forenoon.*

### VETERINARY SCIENCE—*Examiner, Professor Murphy.*

1. Name the natural families to which farm animals belong, with the generic and specific characters of each.

2. Name the aboriginals and their "habitats," from which the domesticated animals are supposed to have been derived.

3. Describe the process of nutrition in the ox.

4. Give the criteria for determining the age of the horse, ox, and sheep.

5. What are the principles to be held in view in the breeding and rearing of farm stock?

6. What are the practical conclusions deducible from Liebig's views on the nutrition of farm animals?

7. Name some of the more common diseases of the horse, with their symptoms and treatment.

8. Do the same as regards the ox, and include "hoven."

9. Do the same as regards the sheep and the pig.

10. Name the insects, with the families to which they belong, to the attacks of which farm stock is most liable; detail a few of the more important facts in the natural history of each, and the best means of preventing injury from them, and state the remedies when animals are attacked by them.

*21st September*, 1853, 2 *o'clock, p.m.*

### SURVEYING AND MAPPING—*Examiner, S. Downing, A.M.*

1. Describe and define the statute chain, and the mode of using it in the field—pointing out also its value, as coinciding with the measures of distance and area existing before its invention by Gunter.

2. Required the number of acres, roods, and perches—

(*a*) in 1856595 square links;
and in 952321·9 do. do.
also in 3845 square chains.

(*b*) Required the length, in links, of the side of a square piece of ground, to contain 2 acres, 3 roods, 18 perches;

(*c*) Also the diameter of a circle which is to contain the area mentioned in (*b*.)

3. State the more usual scales at which the surveys of parishes or large estates are plotted, and also small farms, and valuable building ground.

4. How would you proceed to make a survey of a farm with the chain only, mentioning the arrangement of lines and subdivisions of the figure, which are essential.

5. Describe fully the methods of determining the area of any survey. First, from the base lines and offsets in the field book; and second, from the map, as plotted.

6. Having chosen and constructed a convenient scale, proceed to plot the figure whose sides are, respectively, 7·58 chains, 9·37, 6·05, and 8·32, the diagonal joining the ends of the first and second lines being 11 chains, and state the area.

7. Take the prismatic compass, and determine with it the bearing of some distant object.

8. Also the angle between any two objects.

9. Five bearings, and lengths of the lines taken around a piece of ground being given, proceed to plot the work.

10. State, with reference to No. 9, what number of the data are essential, and the utility of taking more than would be absolutely required to close the survey.

11. Describe the construction and adjustments of the theodolite, and the principle of the vernier, reading the angle between two distant objects.

12. Rule the necessary columns for a levelling field book, and reduce these following staff readings, the datum being taken at 500:—

| Back. | Fore. |
|---|---|
| 8·37 | 4·32 |
| 9·05 | 3·27 |
| 10·42 | 1·33 |
| 2·50 | 8·65 |
| 3·22 | 13·00 |
| 4·10 | 12·09 |

13. The distances in links being, in successive order, 153, 210, 285, 312, 480, 542, write them in their proper places, each staff having had a chained distance.

14. Point out the checks upon the accuracy of the level book, and state the mode of checking the levelling itself.

15. Take the level from the box and set it up, and mention the adjustments which are needed at every station, and also those adjustments requisite to the true performance of the instrument.

*22nd September*, 1853, 9 *o'clock, a.m.*

### ARITHMETIC AND MENSURATION—*Examiner, John Mulcahy, LL.D.*

1. If £540 at simple interest amount to £734 8*s*. in nine years, find the rate per cent.

2. Divide 325 by 8.7, and carry the quotient to five decimal places.

3. Divide $\frac{5}{11}$ by $\frac{4}{3}$, and explain the reason of the process.

4. A and B perform a piece of work in 3 days. A, alone, can perform it in 4 days. How many days would B require?

5. Find the cube root of 405224.

6. If 7 men can reap 6 acres in 12 hours, how many men will reap 15 acres in 14 hours?

7. If 560 flagstones, each 1½ feet square, will cover a court-yard, how many will be required for a yard twice the size, each flagstone being 14 inches by 9 inches.

8. The base of a prism is a right-angled isosceles triangle, whose hypotenuse is 10 feet; the altitude of the prism is 8 feet; required the solid content.

9. If the area of a circular sector be given, and also the length of the arc, how can the radius be found.

10. If the convex surface of a cylinder be equal in area to the two circular faces, what must be its altitude?

11. How is the area of the convex surface of a cone found?

12. Given the side of an equilateral triangle equal to 10 feet, prove that its altitude is $5\sqrt{3}$, and find the approximate value to four places of decimals.

*23rd September, 1853, 9 o'clock, a.m.*

### CHEMISTRY—*Examiner, Edmund Ronalds, Ph. D.*

1. How do you account for the formation of dew?

2. What volume will 100 cubic inches of air, the barometer standing at 27 inches, occupy, if the mercurial column rise to 30 inches?

3. In what proportions, by weight and volume, are the constituent elements combined in water, and what function does water perform in sustaining vegetation?

4. Which ingredient of the atmosphere is most abundantly assimilated by plants; under what conditions does the assimilation take place, and how is the atmospheric supply kept up?

5. From what source is nitrogen afforded to plants, and into which class of vegetable compounds does it enter as an ingredient?

6. What is the composition of silica, in what forms and combinations does it chiefly occur in soils, and to which part of the vegetable structure is it peculiarly essential; how may the insoluble modification be rendered soluble; and to what useful purposes is it applied in combination with earthy and alkaline bases?

7. Name the inorganic compounds which principally constitute the ashes of plants.

8. Which ingredient of the ashes of plants is the most valuable as a commercial article; how do you account for its presence in the ash when it is not found in the natural juices, and how would you separate it from the other salts with which it is mixed?

9. What chemical function does lime perform when added to bog and clay soils respectively?

10. Why is it unprofitable to add burnt lime to a manure heap, and why is the addition of gypsum strongly recommended?

11. What is the object of adding oil of vitriol to bones, when the latter are to be employed as manure?

12. How does the chemical composition of clay differ from that of marl?

13. What quantity of ammonia ($NH_3$) will be afforded by one ton of the commercial sulphate of ammonia, if the latter contain 80 per cent. of the pure salt ($NH_3$, HO, $SO_3$).

N.B.—Equivalent of N = 14
„ „ H = 1
„ „ O = 8
„ „ S = 16

14. How do you account for the conversion of starch into sugar, as effected in the brewer's mash tun?

15. What are the proximate ingredients of wheaten flour, and how may they be separated from each other?

16. How is the spontaneous coagulation of milk explained, and what function does the rennet perform in the manufacture of cheese?

17. Explain, with the aid of symbols, the chemical change which occurs in dilute alcoholic solutions, such as beer or wine, when freely exposed to the air; and state why the product obtained under such circumstances is not so applicable to the preservation of meat as a similar substance obtained by a different process.

18. Why are cold and excessive exercise prejudicial to the accumulation of fat in animals?

19. What chemical compound is formed when skin is converted into leather?

20. What fertilizing agents are sought to be made available by carefully preserving the liquid manure of the farm yard?

*23rd September, 1853, 2 o'clock, p.m.*

### PHYSICS—*Examiner, George F. Shaw, F.T.C.D.*

1. A lever 4 feet long is attached at one end by a hinge to a fulcrum, and supported at the other by the finger. Five weights, of 1 lb. each, are hung from the lever at the distances of 6, 14, 20, 31, and 44 inches respectively from the fulcrum. Find the pressure on the finger.

2. A pressure of 27 lbs. makes with another pressure, unknown in magnitude, an angle of which the sine is ·473. They compound a resultant equal to 42 lbs. Find the magnitude of the unknown pressure, and the sine of the angle it makes with the resultant.

3. Find the velocity acquired by a railway train in running down a gradient of 2,164 feet,

having a total fall of 20 feet, the force of gravity being 32·19, and the resistance of the air and friction being 9 lbs. per ton.

4. The pressure of a fluid on an immersed body is, at each point, proportional to the depth of immersion. By what simple apparatus is this law directly proved?

5. A gas contained in a vessel of 1,000 cubic inches, and kept at 100° C, sustains a pressure of 11 inches of mercury. How many inches will it sustain when compressed into a vessel of 450 inches, and raised to the temperature 120°?

NOTE.—Assume the gas's coefficient of expansion at ·00376.

6. Describe some experiments by which the latent heat (*a*) of water, and (*b*) of steam, can be measured, and state the result in each case.

7. Describe the mechanism (*a*) of the *reversing rod* in a locomotive, and (*b*) of the *air-pump* in a condenser, stating how any imperfection in the valves of the latter would affect the working of the engine.

8. Explain the terms, free electricity, and latent electricity. Illustrate the latter (*électricité dissimulée*) by certain experiments and apparatus which involve it.

9. One kind of electric telegraph is founded on an effect of electric currents on the magnetic needle; another kind on an effect of the same currents on soft iron. Give some account of the mechanism in each case.

10. (*a*) Look through a tumbler of water into the street. The movements of the passers by are reversed in direction. Explain this phenomenon.

(*b*) Turn your back on the window and look again into the tumbler. You may see with each eye a *coloured* image of the window. Account for this.

(*c*) Place a lighted candle on the table, and holding the tumbler above the level both of the eye and of the candle, look up at the surface of the water. A *bright* image of the flame is seen floating there. How is this formed?

11. The earth's figure being supposed spherical, how does astronomy determine its magnitude?

12. Explain the revolution of the seasons.

13. Explain the phenomenon called Harvest Moon.

14. Calculate the amount of work in excavating 8,000 cubic feet of earth and removing it to a distance of 360 feet, the material being such as to require three pickmen to two shovellers, and the filling of 500 barrows (each containing a cubic foot) being considered a day's work for a man; and estimate the cost of this work, allowing 2*s.* a day to each pickman, 1*s.* 9*d.* to each shoveller, and 1*s.* 3*d.* to each barrowman.

15. The breadth of a stream is 5 feet, its depth 2 feet, the mean velocity of the water 12 feet per minute, and the height of the fall 10 feet. Required the horse-power of the water-wheel which will do $\frac{7}{15}$ of the work of the water, and also the number of bushels of corn which the wheel will grind in a day of 11 hours.

16. Draw and explain some kind of intermitting fountain.

17. Explain the action of a hydraulic ram, such as is on view at present in the Dublin Exhibition.

18. An embankment of 20 feet in length, has for its transverse section a trapezoid 10 feet high, 8 feet broad at base, and 3 feet at top. The weight of each cubic foot of its material is 130 ℔.

(*a*) What is its stability?
(*b*) Will it resist the pressure of 9 feet depth of water?

*24th September*, 1853, 9 *o'clock, a.m.*

## ZOOLOGY—*Examiner, Dr. Dickie.*

1. State the general character of animal as contrasted with vegetable organisms.

2. State the general characters of the teeth in man as compared with those of Carnivora and Herbivora.

3. State, and briefly define, the classes comprehended in the Vertebrata.

4. Give the species, genus, order, and class to which the sheep and turkey respectively belong. Explain also the import of the term *variety*, and illustrate by examples.

5. Mention peculiarities of the alimentary canal in birds, having reference to the nature of the food, and give examples.

## BOTANY.

1. Why are certain plants called vascular and others cellular? Explain the general differences between them implied by the above terms.

2. Describe the corolla of the common bean, stating the number of its pieces and their relative size; give the technical name of such corolla.

3. By what means does the common pea cling to other objects? Explain the nature of the organs in question.

4. State the class and order to which you would refer the oak. Explain also on what principle the probable age of such a tree might be ascertained.

5. State what principles would guide you in preserving the vitality of seeds.

*24th September*, 1853, 2 *o'clock. p.m.*

## MINERALOGY AND GEOLOGY—*Examiner, Frederick M'Coy, F.G.S.L., Hon. F.C.P.S.*

1. What do you understand by a "simple form" and "a combination" in crystals? Draw singly the figures of a cube, an octahedron, and a dodecahedron, and a figure combining them all.

2. Describe the so-called primary forms of crystals, grouping them under their proper crystalline systems.

3. State the circumstances under which carbonate of lime will crystallize as arragonite, or as calcareous spar respectively; and those which influence the crystallization of sulphur, sometimes in one system of crystals and sometimes in another.

4. Give the chemical and crystallographic distinctions between albite and common felspar, also the differences of china clay from both of them.

5. Give the chemical and crystallographic characters of galena, iron pyrites, copper pyrites, quartz, and hornblende.

6. Draw a vertical section, showing all the members of the carboniferous series in proper order, and mention a few of the genera of fossils, distinguishing rocks of this age from those immediately above and below them.

7. To what part of the series does the "cornbrash" of English geologists belong?

8. Draw a horizontal section, showing the relative positions of the Gault, the Kimmeridge clay, the Oxford clay, and the Lias clays, with the intermediate strata, and mention the more common fossils by which these different clays may be discriminated.

9. State the minerals which enter into the composition of granite, protogine, syenite, greenstone, gneiss, and mica slate, respectively.

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## HONOR EXAMINATION OF CANDIDATES PASSED FOR DIPLOMA IN AGRICULTURE.

*27th September*, 1853, *afternoon.*

### SCIENCE OF AGRICULTURE.—*Examiner, Professor Murphy.*

1. Take any reliable analysis of a fertile wheat soil, take also into account the amount of the food of plants obtainable from the atmosphere, and endeavour to show therefrom the number of crops of wheat (of four quarters each of grain, and a ton of straw) which theory indicates as capable of being produced by such land, without the application of manure by the farmer.

2. Taking for granted that ammonia, phosphates, and soda are the important ingredients in manure, what quantity of farm-yard manure, or of guano, or of bone-dust, or of a combination of them, would be required to produce a crop of 40 tons of Swedish turnips, per acre, on land of fair quality, well cultivated, but quite exhausted of organic manure by previous cropping?

3. Prepare a ground-plan sketch of farm offices suited to a farm of 200 acres of mixed husbandry.

4. Draw up what you consider to be the best method of farm book-keeping.

5. Given the girth of an ox, 8 feet, and the length, 6 feet, required the weight of the four quarters, with the reason for any formula you may use.

6. What are the "points" which indicate excellence in the horse, the ox, the sheep, and the pig.

*28th September*, 1853, *9 o'clock, a.m.*

### CHEMISTRY.—*Examiner, Edmund Ronalds, Ph. D.*

1. How do you account for the appearance of a cloud in the receiver of an air pump upon the first stroke of the exhausting piston, and what natural phenomenon may be similarly explained?

2. What ingredients are essential to render a soil fertile, and in about what proportions should these be present?

3. How would you proceed to ascertain the following facts relative to the character of a soil?—

Specific gravity.
Quantity of moisture.
Quantity of organic matter.
Relative proportions of sand and clay.
Relative quantities of soluble and insoluble matter.
Quantity of lime, magnesia, oxide of iron, earthy phosphates, and alkali.

4. What will be the effect of continued drought upon surface soil, rich in saline ingredients, and resting upon a sandy substratum?

5. State the differences, in composition, between felspar and hornblende, and why the soils derived from the disintegration of trap rocks are more fruitful than those resulting from the decomposition of granite.

6. What important fertilizing ingredient does the urine of man contain, which is absent in that of the cow, horse, and sheep?

7. What is the composition of the ammonio-magnesian phosphate, and how may it be economically obtained from human urine, according to Boussingault, and in about what quantity?

8. How do you explain the spontaneous decomposition which renders the urine alkaline, on exposure to the atmosphere?

9. What chemical tests would you employ to distinguish between hydraulic, magnesian, and ordinary limestone?

10. What is the general composition of the fossil bodies known by the name of coprolites, and for what substances, and in what form, are they employed as substitutes in agriculture?

11. What is the average composition of genuine guano?

12. What simple experiments and observations should be made in selecting a specimen of guano?

13. How would you proceed to analyse a specimen of guano, so as to ascertain its real agricultural value?

14. What is the function ascribed by Liebig to common salt, in the animal economy, and how have these views been confirmed by the experiments of Boussingault, on the feeding of cattle?

15. Liebig classifies the ordinary agricultural plants under three heads, according to the preponderance of some one ingredient in their ash. Name the three classes, with some of the plants belonging to each.

16. Of what substances is the soil liable to be chiefly deprived by long continued dairy husbandry?

17. Why is it necessary that grazing land, employed for the production of wool, should be well supplied with sulphates?

18. Describe the chemical processes concerned in the preparation and baking of bread.

19. Why is bread prepared from the whole flour said to be more nutritious than when the finest flour only is employed?

20. How would you ascertain the amount of nitrogen contained in an organic substance?

*28th September*, 1853, 2 *o'clock, p.m.*

## SURVEYING AND MAPPING—*Examiner, Samuel Downing, A.M.*

1. Describe the "contour line," pointing out, by a sketch, the manner in which a system of contour lines gives the necessary relief to a map or projection.

2. State, in detail, the method of surveying for contours, the data required, the mode of proceeding in the field, and subsequent plotting on the map.

3. Point out the application of these lines, when given on a map, to the laying out and comparison of lines of intercommunication—to drainage and irrigation.

4. What is the conventional sign by which they are distinguished on the Ordnance Maps from other lines, such as the boundary lines of the several denominations; pointing out the distinction between contour lines actually plotted, and those that have been filled in; and in the former the actual points at which the staff was held.

5. Give the investigation of the rule for the correction of staff readings in levelling—
(*a*) For curvature of the earth.
(*b*) For curvature with refraction.

6. A level in good adjustment is set up on elevated ground, and the sill of a window, 1 mile, 3 furlongs distant, coincides with the horizontal line in the diaphragm; what is the difference of altitude of the two places in feet, and which is the higher point?

7. Express the scale of a map by a decimal fraction, and point out the advantages of this mode of the notation of scales, taking as examples the scales of the Ordnance Maps, 6 inches to one mile, 5 feet to one mile, and 1 inch to one mile.

8. A farm road has to be constructed from the point A to B, at an inclination of one in 25, over a line whose section is contained in the following field notes [*given in manuscript*], plot the section, and calculate from field-book the depths and heights of cutting and embankment at every 50 links.

9. The slopes of the cutting and embankments being $1\frac{1}{2}$ to 1, and the road at formation level being 15 feet wide, state—
(*a*) The widths of ground required at the same points as in No. 8.
(*b*) Also the cubic quantity of the earth-work.

10. How would you determine the true meridian approximately, and from it deduce the variation of the compass?

11. Plot and ink in the following field notes [*given in manuscript*] of a traverse of a road taken with the theodolite.

12. Two base lines in a survey are found to intersect in a pond of water; how do you determine their respective lengths at this point, thus inaccessible.

13. From a point A, in a boundary between two properties, it is required to lay out a straight fence to some point D in the right line N M so that each have the same acreage.

14. It is required to ink in this complete pencil drawing of the map of a farm, to show the requisite skill as a draughtsman.

*29th September*, 1853, 2 *o'clock, p.m.*

## MINERALOGY AND GEOLOGY—*Examiner, Frederick M'Coy, F.G.S.L., Hon. F.C.P.S.*

1. Explain the formation and use of the scale of hardness, enumerating the minerals of which it is composed in proper order, with the numbers by which their hardness is indicated.

2. Write down the chemical formulæ of the potash and soda felspars, calcareous spar, tinstone, and iron pyrites, and mention the system to which crystals of each belong.

3. If one lateral edge of a pyramidal crystal be modified, how many edges will be

similarly and simultaneously modified? How many if a terminal edge? How many if one edge of a cubic crystal?

4. Explain what is meant by isomorphism and dimorphism, naming a few minerals as remarkable examples of each.

5. State the method of making a geological map, and finally of making a geological section from the same map when completed, illustrating your observations by drawings.

6. What is the position and chemical character of the more important iron ore in the coal measures?

7. Mention some of the plants diagnostic of the true palæozoic coal, and some of those characterizing the oolitic coal deposits.

8. Explain the way in which "faults" in strata are often connected with springs of water at the surface.

9. Describe the general characters and precise geological position of the more valuable cretaceous and tertiary manures.

10. Describe the geological circumstances which, in Cornwall, mark the most richly metalliferous lines of country.

*30th September*, 1853, *forenoon.*

### PRACTICE OF AGRICULTURE—*Examiner, Professor Murphy.*

1. Given a wet, shallow, argillaceous soil, with a sufficient outfall, under 300 feet of elevation, and worth, in its unimproved state, 10*s.* per statute acre; required a detailed account of the best means of improving it, with the cost of each operation, and the probable increased annual value of the improved land.

2. Detail the best mode of improving a tract of deep bog, worth, in its present state, 6*d.* per acre, per annum, clay or limestone gravel obtainable at the distance of one mile. Give the average cost of each operation, and the probable increased annual value of the reclaimed land.

3. Give an estimate, showing the advantage of good over bad culture on land of medium quality.

4. Can you refer to experiments performed with a view to determine the best mode of fattening cattle? State which you consider best, and your reasons for such opinion.

5. Name some of the usual rotations of crops adopted on various soils, and give your view on the subject of rotations.

6. Detail, as concisely as you can, the principles of land valuation.

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## III.—LIST of CANDIDATES who obtained DEGREES, DIPLOMAS, and HONORS, on Monday, 10th October, 1853.

### 1. *For the Degree of Doctor in Medicine.*

Robert Gillespie,* Belfast.
John Breaky, Belfast.
Thomas Coghlan, Cork.
Cornelius Barry Delany, Cork.
Robert Dick, Belfast.
William Hegarty, Cork.
John M'Coy, Cork.
Patrick James Molloy, Cork.
James William Thomas Smith, Belfast.

### 2. *For the Degree of Master in Arts.*

Richard Blair Bagley, Cork.
Boyle William Coghlan, Cork.
Charles Winston Duggan, Galway.
Robert Dunlop, Belfast.
Thomas Henry, Belfast.
Moffatt Jackson, Belfast.
William Lupton, Belfast.
Henry Hickman Morgan, Cork.
David Hill M'Murtry, Belfast.
Mathias O'Keeffe, Cork.
James Wilson, Belfast.

### 3. *For the Degree of Bachelor in Arts.*

John Barrett, Cork.
William Bole, Belfast.
William A. Browne, Galway.
Richard Bullen, Cork.
John Camac, Belfast.
Andrew Commins, Cork.
John O'Beirne Crowe, Belfast.
Jeremiah J. Dowling, Cork.
John Greenlees, Belfast.
Robert Hart, Belfast.
Patrick Joseph Hughes, Galway.
Thomas Dunbar Ingram, Belfast.
John Jennings, Belfast.
Christopher Marceet Keane, Galway
William King, Galway.
Dominick L. M'Dermott, Galway.
Edward M'Namara, Cork.
John O'Brien, Cork.
Denis B. O'Flyn, Cork.
William Page, Cork.
David Ross, Belfast.
John Anderson Smith, Galway.
James Swanton, Cork.
Richard Wall, Cork.
John Witherow, Belfast.

### 4. *For the Degree of LL.B.*

Thomas Dunbar Ingram, Belfast.

### 5. *For the Diploma of Elementary Law.*

Christopher Marceet Keane, Galway

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* This gentleman passed for his Degree in 1852.

6. *For the Diploma of Agriculture.*
James Hardiman, Galway.

7. *For Certificate of having passed first Medical Examination.*
Eugene O'Leary, Cork.

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## IV.—RETURN of HONORS voted by the SENATE of the QUEEN'S UNIVERSITY in IRELAND to SUCCESSFUL CANDIDATES at the EXAMINATION ended on 10th October, 1853.

### IN THE FACULTY OF MEDICINE.

| | |
|---|---|
| 1st Honor—An Exhibition, value £20, and a Gold Medal, | John M'Coy, M.D. |
| 3rd Honor—An Exhibition, value £5, and a Gold Medal, | Robert Dick, M.D. |

### IN THE FACULTY OF ARTS.—A.M. HONORS.

*Classics.*

| | |
|---|---|
| Honor—An Exhibition of £15, and a Gold Medal, | Richard Blair Bagley, A.M. |
| Extra Honor (at recommendation of Examiners)—£10, | James Wilson, A.M. |

*English Philology and Criticism, Logic, Metaphysics, or Political Economy and Jurisprudence.*

| | |
|---|---|
| Honor—An Exhibition of £15, and a Gold Medal, | Robert Dunlop, A.M. |
| Extra Honor (at recommendation of Examiners)—£5, | Moffatt Jackson. |

*Mathematical and Physical Sciences.*

| | |
|---|---|
| Honor—An Exhibition of £15, and a Gold Medal, | William Lupton. |
| Extra Honor (at recommendation of Examiners)—£5, and a Gold Medal, | Mathias O'Keeffe. |

*Experimental and Natural Sciences.*

| | |
|---|---|
| Honor—An Exhibition of £15, and a Gold Medal, | Charles Winston Duggan. |
| Extra Honor (at recommendation of Examiners)—£5, | David Hill M'Murtry. |

### A.B. HONORS.

*Ancient Classical Languages and Literature.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | Richard Wall, A.B. |
| 2nd Honor—An Exhibition, value £10, and a Gold Medal, | John O'Beirne Crowe, A.B. |

*English Language and Literature.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | Robert Hart, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | Patrick Joseph Hughes, A.B. |

*Modern Foreign Languages.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | Richard Wall, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | Patrick Joseph Hughes, A.B. |

*Mathematics.*

| | |
|---|---|
| 2nd Honor—An Exhibition, value £10, and a Gold Medal, | John O'Brien, A.B. |
| 3rd Honor—A Gold Medal, | Richard Bullen, A.B. |

*Natural Philosophy.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | John O'Brien, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | James Swanton, A.B. |

*Chemistry, and Chemical Physics.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | Andrew Commins, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | John Anderson Smith, A.B. |

*Natural Sciences.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | John Witherow, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | Dominic L. M'Dermott, A.B. |

*Logics and Metaphysics.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | Robert Hart, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | William A. Browne, A.B. |
| Extra Honor (at recommendation of Examiners)—£5, | Dominic L. M'Dermott. |

*Jurisprudence and Political Economy.*

| | |
|---|---|
| 1st Honor—An Exhibition, value £15, and a Gold Medal, | David Ross, A.B. |
| 2nd Honor—An Exhibition, value £5, and a Gold Medal, | Thomas Dunbar Ingram, A.B. |
| Extra Honor (at recommendation of Examiners)—£5, | P. J. Hughes, A.B. |

*Celtic Languages.*

| | |
|---|---|
| Honor—An Exhibition, value £10, and a Gold Medal, | J. O'Beirne Crowe, A.B. |

### IN THE FACULTY OF LAW.

| | |
|---|---|
| Honor—An Exhibition of £15, and a Gold Medal, | T. Dunbar Ingram, A.B., LL.B. |

*Elementary Law.*

| | |
|---|---|
| Honor—An Exhibition of £10, and a Gold Medal, | C. Marceet Keane, A.B. |

## IV.—Report of a Public Meeting of the Queen's University in Ireland, held in St. Patrick's Hall, Dublin Castle, 10th October, 1853

A meeting of the Queen's University was held on this day, for the purpose of conferring degrees upon Students in the Provincial Colleges of Belfast, Cork, and Galway. The ceremony took place in St. Patrick's Hall, Dublin Castle, which was fitted up for the accommodation of the members of the University, the candidates, and a large number of visiters. A large assembly, including the Senate of the University, the Professors and Students of the Colleges, arrayed in their collegiate costumes, and a considerable number of visiters, attended on the occasion. Shortly before three o'clock, the hour appointed for the meeting, his Excellency the Lord Lieutenant, accompanied by his Aides-de-camp in waiting, arrived from the Viceregal Lodge, and took his place at the head of the hall, beside the Vice-Chancellor, at each side of whom sat the other members of the Senate, invested with their official robes. Amongst those who assembled were:—

The Right Hon. Maziere Brady, Lord High Chancellor of Ireland, Vice-Chancellor; His Grace the Archbishop of Dublin, the Right Hon. F. Blackburne, Sir Philip Crampton, Bart.; Rev. P. S. Henry, D.D., President of Queen's College, Belfast; Sir Robert Kane, President of Queen's College, Cork; Edward Berwick, Esq., President of Queen's College, Galway; Dr. Corrigan, the Chief Secretary for Ireland; the Very Rev. the Dean of the Chapel Royal, the Marquis of Kildare, the Earl of Harrowby, the Lord Chief Justice of the Common Pleas, the Right Hon. Baron Greene, Right Hon. J. Hatchell, the Hon. and Very Rev. the Dean of St. Patrick's, Mr. Justice Jackson, Mr. Commissioner Longfield, Sir W. Hamilton, Sir H. Marsh, Dr. Twiss, Dr. Banks, Mr. Corballis, Professor Heron, Dr. Hatchell, Mr. Commissioner Baldwin, Dr. Owens, Deputy Governor of the Apothecaries' Hall; Dr. Hancock, Alderman Andrews, &c.

His Excellency the Lord Lieutenant and the Senate having taken their seats,

The Vice-Chancellor rose and said—The Senate of the Queen's University is again assembled in this hall to fulfil the most important of its functions, that of conferring degrees and honors on the several Students who have attended at our examinations from the Queen's Colleges of Belfast, of Cork, and of Galway; and it is most gratifying and encouraging to find that the numbers so attending progressively increase. On the last occasion of our meeting for the like purpose, in October, 1852, degrees were conferred on thirty-three Students: we have now before us twenty-five who have passed the examination for the degree of Bachelor of Arts, eleven for that for Master of Arts, and eight for the degree of Doctor of Medicine—in all forty-six Students; of whom eighteen are from the Queen's College of Belfast, twenty from that of Cork, and eight from that of Galway. And twenty-seven of those Students have successfully competed in their respective departments of study for the honors we have proposed to confer on the present occasion. It was my pleasing duty, at our last meeting in this hall, to announce the high opinion entertained by the Examiners of the manner in which the Students then before us had passed through the examinations—as well those for degrees and diplomas as those of a more difficult character, by which the competition for honors was determined. I have, on this occasion, to convey a similar tribute of their general approval of the answering of the Students, on the part of the eminent and learned individuals who have discharged the duties of Examiners at the late examinations; and I believe it will be found, when the papers of this examination shall be laid before the public, that it has been, in all the branches of science and learning comprised within the range of our course of studies, well fitted to test the application and develop the acquirements of the Students, to have demanded no ordinary or superficial preparation, and to satisfy the public that the young men who have passed through this ordeal with success have come from institutions well designed for all the purposes of sound and useful instruction, and fully provided with teachers of great learning, intelligence, and assiduity in their several departments; and, further, that they must have diligently availed themselves of the means of instruction thus provided for their education. That education takes a wide and useful range through the fields of literature and science, and I think I may say of it that if there be as yet in it any thing incomplete, it nevertheless approximates very nearly to all that is demanded by the advancing spirit of the age for the institution of a general system of collegiate studies. It will not be out of place on this occasion, that I should advert to some of the details of the course of studies thus established, and to observe upon them as in connexion with the Ordinances prescribed by this University for the guidance of candidates for its degrees and honors. That course, it is determined, shall comprise a period of three years, during which the Student is to pursue in some one or other of the Queen's Colleges the following branches of literature and science:—The Greek and Latin Languages, the English Language, Modern Languages, Mathematics, Logic, Chemistry, the Principles of Zoology and Botany, Natural Philosophy, History, and English Literature, Physical Geography; and to these is to be added the study of Metaphysics, or that of Jurisprudence and Political Economy, at the option of the Student. Under some of these general divisions of study, many special studies are arranged, as, for instance, when I turn to the description of the business of the class of Natural Philosophy, in the announcements of the College lectures of the Professors, I find it declared to consist of demonstrations of the principles of Mechanics, Hydrostatics, Pneumatics, Acoustics, Optics, and Astronomy; and the course of Chemistry embraces, in addition to Chemistry proper, the general properties of heat, Galvanism, and Electro-magnetism, together with their more important applications to the arts. In other branches like divisions will be found. The course of study thus indicated is, as I have stated, to be pursued during a period of three years, in one or other of the Colleges; not, however in all those branches simultaneously during the entire term, but in a certain order of arrangement for each successive year, the details of which it is unnecessary to enter into. To assure us that this has been well and faithfully observed, the Ordinances of the Senate require that every candidate for its degrees should produce certificates from the Professors and authorities of the several Colleges of his having so pursued these courses of study, and of his having passed the annual examinations of his College, and been found sufficiently qualified to be admitted to the examination for a degree. They do not, however, exact from him that he should, in that final examination, answer in all those several branches. A certain range of selection is left open to the candidate as to some of the subjects of his previous studies, while a successful examination in others is made essential to his obtaining the degree. Those, then, considered as of necessary obligation, are the Greek and Latin Languages, and the literature of each; one Modern Language, at the least; and Mathematics. The other branches of study are divided into three groups, comprising subjects having some analogous relations to, or connexion with, each other; in one of which groups, to be selected by himself, the candidate must also be expected to answer. These observations apply to the ordinary degree of Bachelor of Arts, that most usually taken by Students of all Universities. Other degrees are, however, sought for special or professional purposes; and in reference to the first of those in our Universities, that of Master of Arts, the Senate have adopted the principle, which is also adopted in the London University, of making the degree a real test of merit and study, instead of permitting it to be assumed, as in the older Universities, almost as a matter of course, after the lapse of a few years from the time of obtaining the Bachelor's degree. To this end we require that the candidate for this degree should be submitted to a special examination, preceded by the study of extended courses of some of the more important branches of learning to which he had applied himself in the undergraduate course. We, on the other hand, have not thought fit to relegate the Student to a collegiate life for any considerable time, at a period when his time and energies might more fitly be devoted to the special studies of some important profession. The candidate for the degree of A.M. may present himself for examination at the expiration of one year from the attainment of that of Bachelor of Arts, and after an attendance in the interval for two terms on a course of lectures in one of the Queen's Colleges on some of the subjects of the course of study in which he submits to be examined. We did not think it expedient wholly to disconnect the studies for this second and higher degree from the College in which the candidate had prepared himself for the first. A somewhat similar course has been adopted by the Senate in relation to the other degrees of Bachelor and Doctor of Laws, the attainment of which must be preceded by special examinations and additional courses of study, embracing that of certain branches of Common Law, Constitutional Law, and Medical Jurisprudence. But to the public, the most vitally important in all the degrees that can be conferred by any University is that of Doctor of Medicine. When we consider the duties, the powers, and the responsibilities of those who enter on the administration of the functions intrusted to the medical faculty, it is impossible to estimate too highly the care that should be taken on the part of all public authorities instituted for the purpose of giving the sanction of degrees and diplomas for the exercise of those functions, to see that nothing shall be wanting that can give a safe guarantee to the world, of the knowledge and the skill of the individual so to be invested with their solemn testimonium. Fully impressed with this conviction, the Senate of the Queen's University have endeavoured to meet the exigencies of its position in regard to the degree of Doctor of Medicine, and, with the efficient assistance of those of its body who are more immediately connected with the profession, have laid down a course of study varied and comprehensive in its nature, and embracing all the recognised branches of medical science, to be pursued by the Students who would seek the sanction of its degree. This course is extended over a period of four years, divided into two periods of two years each; and the candidates, before admission to the degree, must pass two examinations, respectively comprehending the subjects of each period of study. Endowed, as the several Queen's Colleges are, with professorships in those several departments, and boasting, as I believe they may very confidently do, that the chairs are filled by men eminent for their knowledge and attainments, and abundantly qualified to convey to the Students the highest degree of professional knowledge, it has not, however, been thought wise or prudent, in the constitution of the University, to restrict the candidates to attendance merely on the lectures of their collegiate professors. It was thought, and wisely thought, to be for the advantage of the Students, and, through them, for that of the public, that each might be free in the wide world of medical science to choose for one branch of his pursuit some place of special study—to select for another some lecturer or professor of more especial eminence in his particular department,—or to devote himself for a time to attendance on practical details in some locality more amply supplied with opportunities for their illustration than could be enjoyed within the limits of the provincial institution. Accordingly, for the attainment of this degree, the Student is not bound to pursue all his academic studies in the Queen's Colleges; and her Majesty's Charter has provided that it shall be sufficient that at least one-third of the course of medical lectures has been attended in one of those institutions. I do not go into the details of the course of studies prescribed by the Senate for the candidates for this degree. They are set forth at large in the printed ordinances of the University. They are for the more especial consideration of the professional world, and I believe they are entirely adequate to their purpose.

On the last occasion of our meeting in this hall, I stated that, in addition to the degrees which we are required to confer, the Senate had determined to give special certificates or diplomas to the Students in Law, in Engineering, and in Agriculture. There is some novelty, but, I believe, sound utility in this arrangement. Though not, technically speaking, degrees, those diplomas are in the nature of them. They are attainable only on a special examination in the respective departments, and after courses of study particularly designed for the purpose of training the Students in the knowledge of the subjects in which the examinations are to be conducted. The course prescribed for the Students of law may, perhaps, only be of interest to members of the legal profession, but those for the diplomas of medicine and agriculture are deserving of general notice, as showing the character and extent of that information which is conveyed in the respective colleges in those now most important branches of knowledge, and the amount of attainment in them which our diploma testifies to be possessed by the person on whom it is conferred. I think that it might be of some consequence that this particular branch of our arrangements should be more generally known. I believe these courses of study and examination comprise much of all that practically and theoretically can be suggested for the education of the lawyer and the agriculturist; and I would hope that on future occasions we shall have a numerous class of candidates for diplomas, which, in testifying to the possession of such acquirements on the part of the successful Students, cannot fail to commend them to profitable employment in their respective departments. In all the branches of learning and science in which we confer degrees and diplomas, special honors have been instituted, to be obtained on a separate examination; and, as I have already stated, at the recent examination, twenty-seven Students have been found worthy of being so distinguished. For the particular subject of their examinations, and for many other details of interest and importance connected with the course of study to which I have adverted, I must, on the present occasion, content myself with referring to our printed Ordinances, to which I do not hesitate to invite the attention of all who are solicitous to diffuse among the youth of our country the advantages of sound and comprehensive education. I desire, in the same spirit, and for the same object, to direct the inquiries of those who are interested in the subject, to the works of classic and scientific learning, in which the Students of the Colleges are instructed, and which form the groundwork of the lectures of the Professors. They will be found enumerated in detail in the published reports of the proceedings and calendars of those institutions; and I think I may safely say, that they comprehend the writings of the most eminent classic authors, of the most profound critics, of the ablest logicians, and of the most gifted of the great instructors of science, in all the varied branches of her vast dominion. The material adjuncts and helps to study to be found in the Queen's Colleges, are not undeserving of mention. In each there is a public library of ancient and modern literature, a museum of natural history, a collection of apparatus for the demonstration of the principles of natural philosophy, and collections especially devoted to the pursuits of the medical profession. These are all, no doubt, of recent origin and collection. If they cannot, as in older institutions, boast of the accumulations of ages of learned benevolence or patriotic bounty, yet they are in many sections of their respective subjects most valuable, and in some not far from being complete; and, speaking from my personal observation of them all, I may say, that the wonder is that in these departments so much has been already done. What remains will, I hope, be not long found wanting. They are departments of vast importance; they require annual care and annual augmentation; and I would fain hope, that the liberal assistance of the legislature will not be asked for in vain, whenever an appeal is made to it for advancement of objects of such importance to the well-being of these great foundations, and through them to the diffusion in our provinces of scientific and useful knowledge. To the extent of this knowledge, or, I should say, to the enumeration of the several branches into which it is arranged in our course of education, perhaps, little as regards the Students could successfully be added. Situated, however, as the Colleges are—in the centres of important districts—it may, perhaps, be thought that they might be made instrumental to the diffusion of more varied and ornamental branches of instruction. To some, on the other hand, it may appear, that in the course of studies in the Colleges, as they are made obligatory by the requisites of our University Ordinances, too much is exacted from the youthful mind, and that too many subjects of study, each in itself demanding earnest and undivided attention, are crowded into a space too limited for the proper application of the faculties of the Students to so varied a course. I know that this has been with some, whose opinions are entitled to great weight, a topic of serious consideration and doubt. I am sure that if, on examination and inquiry, it shall be found by the Senate that amendment is called for, such amendment will be made, as far as is consistent with our determination and our ability to keep faith, if I may say so, with the world, and to give to no man an authentication of learning on a shallow and unsound examination. But I confess, that to this time at least, I do not share in the opinions of those who think that the course of study prescribed is over arduous, unnecessary, or oppressively extensive; and if I wanted an answer to the objections, I have to look before me and I find it. It is in the numbers now presented to us who have gone through this course of training, who have pursued the studies thus prescribed, who have undergone and passed the examination by which their proficiency is fully attested; and, I may add, more especially in the class of those who have, in addition to the ordinary examination, competed for, and obtained the honors now about to be conferred upon them—honors impossible of attainment but by the possession of a profound and accurate knowledge of the most important of the subjects comprised in the collegiate studies in which for the last three years they have been severally engaged. Looking, then, to this honourable array—looking back to the class of Graduates who presented themselves in like manner in the year 1852, I am relieved of any serious apprehension for the further progress of those now engaged, or who are about to engage, in the studies of the Queen's Colleges, that they will find the course beyond their power of mind or of application. I would say to them, if any encouragement is required to excite the energies of the youthful Students, look onward to this vanguard of your collegiate ranks—see that, if difficulties there are, they have been overcome by them—set yourselves steadily to the same honourable pursuit, and be satisfied that, as in everything else in life, so in collegiate studies, what has been done before can be done again, if only the attempt be made with attention, with energy, and with perseverance. I have nothing to add to the observations I felt it my duty to make at our last meeting in this hall, in reference to the moral and religious instruction and conduct of the Students in the Queen's Colleges. These institutions are not, nor were they designed to be, schools for the special training in theological studies of those who purpose to devote themselves to the sacred offices of the ministry in any religious denomination; but the provisions of the Statute under which they have been founded, and those of the Royal Charter by which they are regulated, have been framed with careful regard to the constant supervision of the habits and conduct of the Students, and their regular observance of religious duties, by the institution of licensed boarding-houses in the respective localities in which the Colleges are situated, and the appointment of those most invaluable officers, the Deans of Residence. I have again to express my regret that we are deprived of the honour and advantage of the presence of our Chancellor, the Earl of Clarendon, who would so much better have filled the place, which, in his absence, it is my duty to occupy. I am sure that this Senate, and the authorities and Professors of the College, will acknowledge that the weighty and most responsible duties in which his Lordship must now be anxiously engaged, could not possibly admit of his taking part in the proceedings of this day; and I also feel, that with me they will believe, that amidst those duties he does not cease to regard our course with the deepest interest, or to give his warmest wishes to the success of this institution, to the constitution of which he devoted his best attention and his most zealous exertions when administering the viceroyalty of Ireland.

Dr. Ball, the Secretary, then called over the names of the candidates for degrees, at the same time handing the official document attesting the degrees in the several orders to the Vice-Chancellor, who presented it to each as he advanced.

The degrees and honors having been distributed to the successful candidates,

The Vice-Chancellor then said—May it please your Excellency, having now arrived at the close of our proceedings, it becomes my pleasing duty to convey to your Excellency the thanks of the Senate of the Queen's University for the honour conferred upon them by your presence upon this occasion, and also for the prompt attention which you have invariably paid to the communications made by them to your Excellency, when they asked your sanction of certain Ordinances which they had found it necessary to adopt in reference to those Colleges. The Charter of this University has made the Lord Lieutenant the patron of the institution; and in obedience to its directions, I have now the honour of presenting to your Excellency the report of the Senate for the year ending September, 1853. The statements in that document will, I believe, fully bear out the opinion which I ventured to express last year, that the gentlemen selected by the Senate to fill the position of Professors and Teachers in the new Colleges, have well and faithfully discharged the important duties committed to their hands. In the course of your Excellency's late tour to the western parts of Ireland, you paid a visit to the College at Galway; and I think I may say, without hesitation, that, through the appliances presented by the course of study adopted in that institution, much has been already accomplished towards advancing the cause of sound education in the province of Connaught. Your Excellency did not find the course of study in actual progress in that College, because your visit took place during the vacation, and when the Students were dispersed to their respective homes; but had it been otherwise, your Excellency would have found that, notwithstanding the many difficulties with which that institution is incumbered, it has progressed in a comparatively successful manner; so much so, indeed, that in spite of all these difficulties, if we consider the number of inhabitants in that province, it will be found that the number of Students in the College of Galway, actually exceeds the proportion that would be expected from a comparison of the populations of Ulster and Munster with that of Connaught. On future occasions I trust that these Colleges will furnish a larger number of Students than have assembled on the present occasion. They are as yet, comparatively speaking, in their infancy. They require and call for the aid and encouragement of all who are interested in the progress of sound education; and I am sure they will receive from your Excellency every support and assistance which your distinguished position will enable you to bestow. In conclusion, I have to express, on the part of the Presidents and Professors of the several Colleges, their cordial thanks for the honour your Excellency has conferred upon them by your presence on this occasion, and their earnest hope that on future occasions they may be enabled to present a larger number of Students to receive the degrees and honors conferred by the Queen's University.

His Excellency the Lord Lieutenant then rose and said—Mr. Vice-Chancellor and members of the Senate, a compliment paid by so distinguished a body as the Senate of the Queen's University, is one of no ordinary value, and I therefore receive with pleasure that which you have just paid to me. I have witnessed these proceedings with great gratification. They are indeed peculiarly interesting to me, for it was my good fortune to have assisted in the foundation, if I may so speak, of this University. (Applause.) I was a member, nine years ago, of the Government of which the late Sir Robert Peel was the head; and holding the office of Chief Secretary for Ireland. I then aided in framing the act which created the three Colleges which are now connected with this University. The establishment of this University has crowned and completed that beneficial measure, and I rejoice that I have been an assistant in promoting so good a work. I believe that in no country is there any College in which the instruction given is superior to that which the Students of the Queen's Colleges in Ireland receive; and I believe that there is no University in any country whose honors, considered as a stamp of merit, deserve to be more highly prized, than those conferred by the University whose Senate I have the honour of addressing. (Applause.)

Gentlemen, I rejoice to find the number of candidates for honors and for degrees has greatly increased; it is a gratifying indication of the estimation in which those distinctions are held; and I rejoice to find also, from the report of the Examiners, that the result of the examinations has been most satisfactory, that the Students have shown that they have diligently employed the time past in those Colleges, and that they have had the advantage of able, of zealous, and of learned, instructors. I hope the members of the governing bodies of these Colleges will always remember that it is on their cordial co-operation, each with the other, and on a due subordination to the heads, that the maintenance of discipline must depend, and that on the maintenance of discipline depend the welfare and the well-being of the Colleges. I hope that the young men who have this day graduated will readily discern the true nature of their position, that they will look upon it as a stepping-stone in their onward course—a stepping-stone upon which they are to take but a momentary stand, and from which they are to advance, unaided by the helping hand upon which they have hitherto rested. I congratulate them, and especially those who have gained honors, upon the success which they have already achieved, which will, I trust, be an incentive to them to future exertions in the acquirement and application of sound and useful knowledge; but I would exhort them, at the same time, not to allow their time or their thoughts to be so entirely engrossed, even by those laudable pursuits, as to forget that they have yet a still higher and more sacred duty—that they will not forget the duty which they owe to God, or be unmindful of his laws. (Applause.)

His Excellency, with the Vice-Chancellor and Senate then retired, and the proceedings concluded.

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## V.—RETURNS of STUDENTS attending the following MEDICAL SCHOOLS and HOSPITALS have been received during the year ended June, 1854.

MEDICAL SCHOOLS OF—
Trinity College.
Queen's College, Belfast.
Queen's College, Cork.
Queen's College, Galway.
Royal College of Surgeons.
Apothecaries' Hall.
Carmichael School.
Original, Peter-street.
Dublin, Peter-street.

HOSPITALS.
Jervis-street.
City of Dublin.
House of Industry.
S. and N. Infirmary, Cork.
Meath.
Belfast.
Mercer's.
Galway Infirmary and Fever Hospital.
Steevens'.

LYING-IN HOSPITALS.
Rotunda.
Coombe.
Cork

Students who purport to present themselves for examination for Medical Degrees in the Queen's University, should ascertain that their names are returned for any Medical Lectures they may attend, lest in consequence of such returns not having been supplied, their qualifications should be deemed insufficient when they so present themselves; and lecturers who are willing to make the required returns, and who have not received the necessary forms through the Registrars of the respective institutions, should cause application to be made for them.

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## VI.—AN ESTIMATE of the sum that will probably be required to defray the Expenses of the QUEEN'S UNIVERSITY IN IRELAND, for the year ending 31st March, 1854.

Two Thousand Two Hundred and Fifty-nine Pounds.

### SALARIES OF EXAMINERS.

| | £ | s. | d. |
|---|---|---|---|
| 1. In Greek, | 100 | 0 | 0 |
| 2. In Latin, | 100 | 0 | 0 |
| 3. In Modern Languages, | 40 | 0 | 0 |
| 4. In Celtic Languages, | 20 | 0 | 0 |
| 5. In Mathematics, | 100 | 0 | 0 |
| 6. In Logic and Metaphysics, | 50 | 0 | 0 |
| 7. In Chemistry, | 100 | 0 | 0 |
| 8. In Zoology and Botany, | 75 | 0 | 0 |
| 9. In Natural Philosophy, | 100 | 0 | 0 |
| 10. In English Literature, | 40 | 0 | 0 |
| 11. In Mineralogy, Geology, and Physical Geography, | 50 | 0 | 0 |
| 12. In Jurisprudence and Political Economy, | 40 | 0 | 0 |
| 13. In Theory and Practice of Medicine, | 100 | 0 | 0 |
| 14. In Theory and Practice of Surgery, | 100 | 0 | 0 |
| 15. In Materia Medica, Pharmacy, and Medical Jurisprudence, | 100 | 0 | 0 |
| 16. In Anatomy, Physiology, and Comparative Anatomy, | 100 | 0 | 0 |
| 17. In Midwifery, and Diseases of Women and Children, | 75 | 0 | 0 |
| 18. In Engineering and Surveying, | 50 | 0 | 0 |
| 19. In Agriculture and Farm Management, | 50 | 0 | 0 |
| 20. In Law, | 40 | 0 | 0 |
| | 1,430 | 0 | 0 |

| OFFICE CHARGES. | £ | s. | d. |
|---|---|---|---|
| Secretary's Salary, | 250 | 0 | 0 |
| Incidentals, Office Expenses, Postage, Messengers, Advertisements, &c., | 180 | 0 | 0 |
| Exhibitions, Prizes, Medals, | 500 | 0 | 0 |
| | 2,360 | 0 | 0 |
| Probable amount of Fees (being the sum received 1853), | 101 | 0 | 0 |
| TOTAL SUM required in addition to Balance of former Grant, | £2,259 | 0 | 0 |

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VII.—CASH ACCOUNT of the QUEEN'S UNIVERSITY, for the year ending 20th June, 1854.

| *Dr.* | £ | s. | d. | *Cr.* | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| To Balance of Account, June, 1853, | 630 | 14 | 1 | By Salaries of Examiners and Secretary, | 1,680 | 0 | 0 |
| " Parliamentary Grant, 1853, 1854, | 1,681 | 0 | 0 | " Incidental Expenses, | 227 | 1 | 1 |
| " Fees on Degrees and Diplomas, | 101 | 0 | 0 | " Medals and Exhibitions, | 475 | 7 | 0 |
| | | | | " Balance in Bank, | 30 | 6 | 0 |
| Total Charge, | £2,412 | 14 | 1 | Total Discharge, | £2,412 | 14 | 1 |

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VIII.—ORDINANCE regulating the CONDITIONS, FORMS, and SUBJECTS of the DEGREE, DIPLOMA, and HONOR EXAMINATIONS for the Year 1854.

GENERAL REGULATIONS.

The General Examination will commence on Tuesday, the 19th September, 1854, and will be carried on in the order prescribed in the annexed Tables.

This Examination will be principally by printed papers, with such *viva voce* interrogation as the Examiner may deem necessary. The Honor Examination is to be solely by printed papers.

Candidates will be required to answer for Degrees and Diplomas in all the subjects prescribed by the Ordinances for their respective courses, save where an option is given herein.

The Honor Examination will be similarly conducted (except where specially provided for), the questions being of a higher character.

The following Fees to the University are to be paid by the respective Candidates to the Secretary before the Examination; they are not returnable in case of rejection, but are not required again for re-examination:—

| DEGREES. | | DIPLOMAS. | |
|---|---|---|---|
| M.D., | £5 | Engineering, | £3 |
| A.M., | 3 | Elementary Law, | 2 |
| LL.B., | 1 | Agriculture, | 2 |
| A.B., | 1 | | |

The names of Candidates obtaining Degrees or Diplomas will be published in alphabetical order; those of Candidates obtaining Honors, in the order of merit.

The Examiners having passed Candidates for Degrees or Diplomas, shall select from them those whom they consider deserving of being examined for Honors, and shall return their names to the Secretary, with the result of the General Examination. None others shall be entitled to compete for Honors, save for that in the Celtic Languages, for which any Candidate who has passed for a Degree may present himself as a competitor, the subject not requiring a preliminary examination.

Students passed for the Degree of A.B. may be examined for Honors in more than one department.

The Examiners are to recommend for Honors solely on the ground of absolute merit. If, consequently, withheld in any one branch of study, the Senate may on the recommendation of the Examiners, apply the amount to increase the Honors in any other department.

Candidates must furnish to the Secretary, through their respective Registrars, on or before the 1st of September, the several Certificates required by the Ordinances; for this purpose they will be supplied by the Registrars with proper Forms and Schedules.

All Degrees and Honors are conferred at the public meeting of the University.

FACULTY OF ARTS.

EXAMINATION for the DEGREE of BACHELOR of ARTS, and for HONORS in that FACULTY.

Every Candidate will be required to answer for the Degree of A.B. in the subjects included in the Group A of the following table, and also to answer in the subjects of at least one of the three groups of subjects marked B, C, D respectively; the Candidate being allowed to select.

1. GROUP A.—REQUIRED FROM ALL CANDIDATES.

*a* { The Latin Language and Literature.
The Greek Language and Literature.
*b* A Modern Foreign Language.
*c* Mathematics.

3. *e* SPECIAL GROUPS, IN AT LEAST ONE OF WHICH THE CANDIDATES MUST ANSWER.

GROUP B.

English Philology and Criticism.
Logic.
Metaphysics, or (in place of Metaphysics, at the election of the Candidate) Political Economy and Jurisprudence.

GROUP C.

Chemistry.
*d* Natural Philosophy.

GROUP D.

Zoology.
Botany.
Physical Geography.

*a.*—In the *Latin* and *Greek Languages* every Candidate will be allowed to select in each language some two works of the following classical authors, in which he may desire to be examined:—

Virgil—First Six Books Æneid.
Horace—Satires, Epistles, and Art of Poetry.
Sallust.
Terence—Adelphi and Phormio.
Cicero—Orations against Cataline.
Tacitus—Agricola and de Moribus Germanorum.
Xenophon—Anabasis, Books 2, 3.
Homer—Iliad, four first Books.
Herodotus—Book I.
Æschylus—Prometheus Vinctus.
Euripides—Medea.
Lucian—Walker's Selections.

*b.*—In Modern Languages the Candidate will be allowed to select for his examination the French, the German, or the Italian Language, and will be required to translate from some two modern authors, in the language selected, and to translate an exercise from English into the same language.

*c.*—In Mathematics the Candidate will be examined in—

The 1st, 2nd, 3rd, 4th, and 6th Books of Euclid, and in the Definitions of the 5th Book.
Arithmetic, including Vulgar and Decimal Fractions.
Algebra, including the usual rules, to the end of Quadratic Equations, with the Nature and Use of Logarithms.
Plane Trigonometry.

*d.*—In the Examination in Natural Philosophy the Candidate will be expected to be able to give such mathematical proofs in reference to any question proposed as may be supplied by the foregoing mathematical course.

*e.*—In the Examinations upon the subjects of the groups selected by the Candidates, the object of the Examiner will be to ascertain the extent and accuracy of the general knowledge of each subject possessed by the Candidate.

The special courses and regulations of the Honor branches are as follows:—

1. ANCIENT CLASSICAL LANGUAGES AND LITERATURE.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The Candidates for Classical Honors will be examined in the following course:

Horace—Odes, Satires, and Epistles.
Virgil—Æneid, Books 1 to 8.
Cicero—Tusculan Disputations.
  De Oratore.
  Actiones Verrinæ.
Juvenal—Satires, 1, 3, 8, 13, 14.
Tacitus—Annals, Book 1.
  Histories, Book 1.
Livy—Books 4 and 22.
Terence—Adelphi and Phormio.
Plato—Apologia and Crito.
Thucydides, Book I.
Herodotus, Book I.
Æschylus—Prometheus Vinctus.
Sophocles—Œdipus Coloneus.
Homer—Iliad, 20 to 24.
  Odyssey, 12 to 18.
Euripides—Medea, Alcestis, and Orestes.
Greek and Latin Composition in Prose and Verse.

2. ENGLISH LANGUAGE AND LITERATURE.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The Candidates will be examined in the History, Philology, and Grammar of the English language, at various periods, and in the principles of Literary and Grammatical Criticism, as exemplified in application to various authors in English Literature.

### 3. MODERN FOREIGN LANGUAGES.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

Candidates will be examined in the History, Philology, and Grammar of the following Modern Languages, viz.: the French or German, or the French and German, or the French, German, and Italian, as the Candidate may think proper. He will be required also to translate from English into the language or languages selected by him for examination.

### 4. MATHEMATICS.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The Candidates will be examined in the following course:—

Euclid Books—1, 2, 3, 4, 5, 6.
Algebra, including its Application to Questions of Probabilities and Annuities.
The Theory and Solution of the Higher Equations.
Plane Trigonometry, including Demoivre's Theorem and its Applications, and the Construction and Use of Trigonometrical Tables.
Conic Sections.
Differential and Integral Calculus.
Differential Equations.
Co-ordinate Geometry, of Two and of Three Dimensions.
The First Three Sections of the First Book of the Principia.
Spherical Trigonometry and its Application to Astronomy.
Theory of Logarithms.—Construction and Use of Logarithmic Tables.

### 5. NATURAL PHILOSOPHY.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The subjects of Examination will be—

Mechanics;
Optics, Geometrical and Physical;
Astronomy, Plane and Physical;

mathematically treated.

### 6. CHEMISTRY, AND CHEMICAL PHYSICS.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The subjects of Examination will be—

Heat.
Electricity.
Crystallography.
Laws of Combination and Constitution.
Inorganic and Organic Chemistry.

### 7. NATURAL SCIENCES.

1st Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The subjects of Examination will be—

The Principles of Animal Structure and Classification.
The Principles of Vegetable Structure and Classification.
The Elements of Geology and Physical Geography.
The Laws of Geographical Distribution of Plants and Animals.

### 8. LOGICS AND METAPHYSICS.

Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The Examination will be conducted in accordance with the courses of instruction in Logics and Metaphysics given in the Queen's Colleges.

### 9. JURISPRUDENCE AND POLITICAL ECONOMY.

Honor: an Exhibition, value £15, and a Gold Medal.
2nd Honor: an Exhibition, value £10.

The Examination will be conducted in accordance with the courses of instruction in Jurisprudence and in Political Economy given in the Queen's Colleges.

### 10. CELTIC LANGUAGES.

Honor: an Exhibition, value £10, and a Gold Medal.

The Examination will include the Critical History and Philology of the Hiberno-Celtic language, with translations of passages from authors of different periods, and re-translations from English.

### REGULATIONS for the EXAMINATION of CANDIDATES for the DEGREE of A.M.

A Candidate may proceed to obtain his Master's Degree by examination in any one of the four following courses of study, viz.:—

1.—*Classics*, which shall be considered as including—
  The Greek and Latin Classic Authors; Prose Composition in Greek, Latin, and English; a modern Foreign Language.

2.—English Philology and Criticism.
  Logic.
  Metaphysics, or (in place of Metaphysics, at the Election of the Candidate) Political Economy and Jurisprudence.

3.—*Mathematical and Physical Science*, which shall be considered as including the following subjects:—
  Algebra, including the theory of Equations.
  Analytical Geometry.
  Trigonometry, Plane and Spherical.
  The Differential and Integral Calculus.
  Differential Equations.
  Theory of Probabilities.
  Statics and Dynamics.
  Hydrostatics.
  Hydraulics and Pneumatics.
  Heat.
  Electricity and Magnetism.
  Optics.
  Plane Astronomy.
  Physical Astronomy.

4.—*Experimental and Natural Sciences*, which shall be considered as including the following subjects:—
  Experimental Physics.
  Laws of Chemical constitution and combination.
  General properties and preparation of Organic and Inorganic bodies.
  Structure, Functions, and Classification of Animals.
  Structure, Functions, and Classification of Vegetables.
  Zoological and Botanical Geography.
  Elements of Geology and Palæontology.
  Elements of Physical Geography.
  Elements of Crystallography and Mineralogy.

An Exhibition of £15, with a Gold Medal, will be conferred by the Senate upon any Candidate who shall obtain the first place in any one of the above four Courses of Study, if he be recommended as possessed of sufficient absolute merit.

### *Regulations for the Examination of Candidates for the Diploma of Civil Engineer or of Agriculturist.*

#### 1.—ENGINEERING DIPLOMA.

1. The Mathematical Examination of Engineering Candidates will include—
  Arithmetic, including Vulgar and Decimal Fractions.
  Algebra, to the end of Quadratic Equations.
  Euclid, 1st, 2nd, 3rd, 4th, 5th, and 6th Books.
  Mensuration.
  Plane Trigonometry.
  Elements of Spherical Trigonometry.
  Construction and use of Logarithmic and Trigonometrical Tables.
  Conic Sections.
  Descriptive Geometry.

2. The Examination in Natural Philosophy, Chemistry, Mineralogy, and Geology, will be conducted with special reference to Engineering objects. In Natural Philosophy the Candidate will be required to supply in his answers all such mathematical proofs as may be supplied by the Mathematical Course above specified.

Every Engineering Candidate will be required to produce one of his own drawings of each of the following kinds, viz.:—Bridges and Roads, accompanied by Plans and Sections; also Topographical Maps, with the Field-Books and observations from which the whole were constructed. Candidates are recommended to produce Architectural drawings and drawings of Machinery. These drawings must be certified by the Teacher of Drawing in the College as having been *bona fide* executed by the Candidate.

Candidates will be furnished with data for a project of Constructive Engineering or Architecture, and will be required to furnish detailed propositions for carrying same into effect, with estimates and specifications.

Every Engineering Candidate must provide a certificate of having been engaged in obtaining a practical knowledge of Engineering under the direction of a Practising Engineer, for the term required by the Ordinance under which he proceeds for his Diploma.

#### 2.—AGRICULTURAL DIPLOMA.

The Examination will include—
  Arithmetic, with Vulgar and Decimal Fractions.
  Mensuration, Practically Treated.
  Principles of Natural Philosophy (without Mathematical proof).

And all the other subjects of the Course for Agricultural Diploma specified in the Ordinances, considered specially in their applications to Agriculture and Land Improvement.

The Candidate is recommended to produce any Surveys or Maps, with the Field-Books from which they were constructed, which he may have prepared during his term of instruction in Surveying.

The Candidate will be furnished with data for a project of Farm Improvement, and required to furnish a detailed proposition for carrying the same into effect, with estimates and specifications.

The Candidate will be required to exhibit and explain a plan previously arranged by him for keeping Farm Accounts.

### *Honor Examination in the Department of Engineering and Agriculture.*

*Engineering*—Honor: an Exhibition, value £10, and a Gold Medal.

The Examination in Mathematics will include the following additional Course:—

The Higher Algebra.
Differential and Integral Calculus, Differential Equations.
Co-ordinate Geometry of two and of three dimensions.
Spherical Trigonometry, and its applications to Astronomy and Geodesy.
The first three Sections of the First Book of the Principia.

In the Examination in Natural Philosophy and in the theory and construction of Machines, the subjects will be mathematically treated.

*Agriculture*—Honor: an Exhibition, value £10, and a Gold Medal.

## FACULTY OF LAW.

### HONOR EXAMINATION IN ELEMENTARY LAW.

Honor: an Exhibition, value £10, and a Gold Medal.

### HONOR EXAMINATION FOR THE DEGREE OF LL.B.

Honor: an Exhibition, value £15, and a Gold Medal.

## FACULTY OF MEDICINE.

### *Regulations for the Examination of Candidates for Degrees and Honors.*

Candidates will be required to answer in all the subjects of the Course prescribed for the Degree of M.D., by the Ordinance of 30th June, 1850; or for the first or second Examination under the Ordinance of the 15th of March, 1852. These latter will be concurrent with the Examinations under the original Ordinance, and will be conducted in the same way.

### HONOR EXAMINATION IN THE FACULTY OF MEDICINE.

| | |
|---|---|
| 1st Honor: an Exhibition, value £20, and a Gold Medal, . . . . .<br>2nd Honor: an Exhibition, value £20, . | For Candidates electing to proceed under the Ordinance of June, 1850. |
| Honor: an Exhibition, value £10, and a Gold Medal, . . . . . | For Candidates in the second examination under the Ordinance of 15th March, 1852. |
| Honor: an Exhibition, value £10, . . | For Candidates in the first examination under the said Ordinance. |

By order,
ROBERT BALL, LL.D., *Secretary.*

*The Queen's University, 20th June,* 1854.

ST. GERMANS.

I, EDWARD GRANVILLE, EARL OF ST. GERMANS, Lord Lieutenant-General and General Governor of Ireland, do hereby approve of the foregoing Ordinance.

By His Excellency's Command,
THOS. A. LARCOM.

*Dublin Castle, 21st June,* 1854.

## Order of the Degree and Diploma Examination in the following Studies in the Queen's University in Ireland, 1854.

| | | ARTS, A.B. DEGREE. | AGRICULTURE. | MEDICINE. | ENGINEERING. |
|---|---|---|---|---|---|
| Tuesday, 19th September, | 9 o'clock, | Latin, | Theory of Agriculture, Farm Finance, and Accounts, | Medicine. | |
| | 2 o'clock, | Greek, | Practice of Agriculture, Farm Improvements, | Surgery, | Drawing and Geometry |
| Wednesday, 20th September, | 9 o'clock, | Modern Languages, | History and Diseases of Farm Animals, | Modern Languages, | Engineering, and Architecture and Finance. |
| | 2 o'clock, | English Literature, | Surveying and Mapping, | Materia Medica, Pharmacy, and Medical Jurisprudence, | Surveying and Mapping. |
| Thursday, 21st September, | 9 o'clock, | Mathematics, | Arithmetic, | Anatomy, | Mathematics, |
| | 2 o'clock | Logic<br>Metaphysics, | — | Physiology and Comparative Anatomy | Mathematics |
| Friday, 22nd September, | 9 o'clock, | Chemistry, | Chemistry, | Chemistry, | Chemistry. |
| | 2 o'clock, | Natural Philosophy, | Elements of Physics, | Natural Philosophy, | Natural Philosophy, Practical Mechanics. |
| Saturday, 23rd September, | 9 o'clock, | Zoology and Botany, | Principles of Zoology and Botany, | Botany (Zoology Junior Class) | |
| | 2 o'clock, | Physical Geography | Mineralogy and Geology Physical Geography | Midwifery and Diseases of Women and Children, | Mineralogy, Geology, and Physical Geography |
| Monday 25th September, | 9 o'clock, | Jurisprudence and Political Economy, | | | |
| | 2 o'clock, | For any viva voce Examination Examiners may wish to give in addition to above. | | | |
| Tuesday, 26th September, | 10 o'clock, | Examiners to meet to make up their Report, and to recommend for Examination for Honors. | | | |
| | 4 o'clock, | Students to assemble to hear result of Examiners' Report. | | | |

ORDER of the A.M., LAW, and HONOR EXAMINATIONS in the QUEEN'S UNIVERSITY in IRELAND, for the year 1854.

| | | A.B. HONORS. | | | | A.M. DEGREE AND HONORS. | | | | | | HONORS. | | | FACULTY OF LAW. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | ENGINEERING | AGRICULTURE. | MEDICINE. | DIPLOMA OF ELEMENTARY LAW. | THE DEGREE OF LL.D. |
| WEDNESDAY, 27TH SEPTEMBER, | 9 o'clock. | I. CLASSICAL LANGUAGES. | Greek | V. | Natural Philosophy | I. | Greek. | III. | Natural Philosophy. | | | Natural Philosophy | Elements of Physics. | Natural Philosophy | Law of Property and Principles of Conveyancing. Jurisprudence. | Law of Property, and Principles of Conveyancing. Jurisprudence. |
| | 2 o'clock. | | Greek. | | Natural Philosophy | | Greek. | | Natural Philosophy | IV | Natural Philosophy | General Physics, Practical Mechanics, Motive Powers. | Theory of Agricultural Finance and Farm Accounts | Medicine. | Equity, Common and Criminal Law Civil Law | Equity, Common and Criminal Law Civil Law. |
| THURSDAY, 28TH SEPTEMBER, | 9 o'clock. | | Latin. | VI. | Chemistry | | Latin. | | Astronomy | | | Chemistry | Chemistry | Chemistry | HONOR EXAMINATION Law of Property and Principles of Conveyancing Jurisprudence | Pleading Practice and Evidence Constitutional and Colonial and International Law. |
| | 2½ o'clock. | | Latin. | | Chemistry Friday, 29th Sept., 9 o'c.* Saturday, 30th Sept., 9 o'c.* | | Latin. English Composition. Modern Languages. | | | | Chemistry | Surveying and Mapping | Surveying and Mapping | Surgery | | |
| FRIDAY, 29TH SEPTEMBER,* | 9 o'clock. | II | English Literature. | VII. | Zoology and Botany | II. | English, &c | | | | Zoology and Botany | Civil Engineering. | Zoology and Botany | Botany | | HONOR EXAMINATION Law of Property, and Principles of Conveyancing Equity and Bankruptcy |
| | 2 o'clock. | | English Literature. | | Mineralogy, Geology and Physical Geography | | English, &c. | | | | Mineralogy Geology, and Physical Geography | Mineralogy, Geology and Physical Geography | Mineralogy, Geology, and Physical Geography | Midwifery, and Diseases of Women and Children. | | Common and Criminal Law Pleading, Practice, and Evidence. |
| SATURDAY, 30TH SEPTEMBER,* | 9 o'clock. | III. | Modern Languages. | VIII. | Logic. | | Logic. | | | | | Architecture, Engineering Finance. | Practice of Agriculture—Farm Improvements. | Modern Languages. | | Jurisprudence. Civil Law |
| | 2 o'clock. | X. | Celtic Languages. | | Metaphysics. | | Metaphysics. | | | | | Drawing, Descriptive Geometry | History and Diseases of Farm Animals. | Materia Medica, Pharmacy, and Medical Jurisprudence. | Equity, Common and Criminal Law Civil Law. | Constitutional Law Colonial Law International Law. |
| MONDAY 2ND OCTOBER, | 9 o'clock. | IV | Mathematics. | IX. | Jurisprudence. | | Jurisprudence. | | Mathematics. | | | Mathematics. | Arithmetic. | Anatomy and Physiology. | | |
| | 2 o'clock. | | Mathematics. | | Political Economy | | Political Economy. | | Mathematics. | | | Mathematics. | | Anatomy, human and comparative. | | |
| WEDNESDAY, 4TH OCTOBER, | 10 o'clock. | Examiners to meet and make up their Report on their Honor Examination. | | | | | | | | | | | | | | |
| | 4 o'clock. | Students to meet to learn the result of Examiners' Report. | | | | | | | | | | | | | | |

The Public Meeting will take place on the 11th of October.

## IX.—EXAMINERS, elected 17th July, 1854.

*Greek.*—William E. Hearne, LL.B., Professor, Q.C., Galway.
*Latin.*—Rev. C. P. Reichel, B.D., Professor, Q.C., Belfast.
*English Literature.*—Rev. Charles F. Darley, A.M., Professor, Q.C., Cork.
*Logic and Metaphysics.*—Rev. James M'Cosh, LL.D., Professor, Q.C., Belfast.
*Mathematics.*—Rev. Robert Carmichael, A.M., F.T.C.D.
*Natural Philosophy.*—George F. Shaw, F.T.C.D., Professor, Q.C., Cork.
*Chemistry.*—Edmund Ronalds, Ph. D., Professor, Q.C., Galway.
*Anatomy and Physiology.*—Charles Croker King, M.D., F.R.C.S.I., M.R.I.A., Professor, Q.C., Galway.
*Zoology and Botany.*—George Dickie, M.D., Professor, Q.C., Belfast.
*Modern Languages.*—Mathias J. Frings, Ph. D., Professor, Q.C., Belfast.
*Mineralogy, Geology, and Physical Geography.*—Frederick M'Coy, F.G.S.L., Hon. F.C.P.S., Professor, Q.C., Belfast.
*Jurisprudence and Political Economy.*—William Neilson Hancock, LL.D.
*Law.*—Michael Barry, M.R.I.A., Professor, Q.C., Cork.
*Civil Engineering and Surveying.*—Samuel Downing, A.M., Professor of Engineering, T.C.D.
*Agriculture.*—Edmund Murphy, A.B., Professor, Q.C., Cork.
*Celtic Languages.*—Cornelius Mahony, esq., Professor, Q.C., Galway.
*Medicine.*—John Banks, M.D., T.C.D., M.R.I.A., King's Professor of Physic.
*Surgery.*—James S. Hughes, M.D., Fellow and Member of Council of the Royal College of Surgeons.
*Materia Medica, Pharmacy, and Medical Jurisprudence.*—Aquilla Smith, M.D., M.R.I.A.
*Midwifery, and Diseases of Women and Children.*—Henry L. Dwyer, A.M., M.B., Fellow of the College of Physicians.

## X.—MEETINGS of the SENATE for the period of this Report in the office of the University, Dublin Castle.

*15th September, 1853.*

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
Major Thomas A. Larcom, R.E., LL.D.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

*5th October, 1853.*

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
The President of the Queen's College, Cork.

Robert Ball, LL.D., *Secretary.*

*8th October, 1853.*

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
His Grace the Archbishop of Dublin.
The Right Honourable Francis Blackburne.
Sir Philip Crampton, Bart.
The Vice-President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E., LL.D.

Robert Ball, LL.D., *Secretary.*

*10th October, 1853—Public Meeting in St. Patrick's Hall.*

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
The Right Honourable Francis Blackburne, LL.D.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.

Robert Ball, LL.D., *Secretary.*

*3rd December*, 1853.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E., LL.D.
Robert Andrews, LL.D.
Robert Ball, LL.D., *Secretary.*

*17th December*, 1853.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D.
Robert Ball, LL.D., *Secretary.*

*7th January*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable Lord Chief Baron Pigot.
The President of the Queen's College, Cork.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E., LL.D.
Robert Ball, LL.D., *Secretary.*

*14th January*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable Lord Chief Baron Pigot.
Sir Philip Crampton, Bart.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D.
Robert Ball, LL.D., *Secretary.*

*21st January*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable Lord Chief Baron Pigot.
The Right Honourable T. B. C. Smith, Master of the Rolls.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D.
Robert Ball, LL.D., *Secretary.*

*11th February*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable Francis Blackburne.
Sir Philip Crampton, Bart.
The President of the Queen's College, Cork.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
James Gibson, A.M., Barrister-at-Law.
Robert Ball, LL.D., *Secretary.*

*15th February*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable Francis Blackburne.
The President of the Queen's College, Cork.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E., LL.D.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D.
Robert Ball, LL.D., *Secretary.*

*29th April*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable the Earl of Rosse, K.S.P.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
Dominic J. Corrigan, M.D.
Richard Griffith, LL.D.
Lieutenant-Colonel Larcom, R.E., LL.D.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D.

Robert Ball, LL.D., *Secretary.*

*20th June*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
Sir Philip Crampton, Bart.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.
Lieutenant-Colonel Larcom, R.E., LL.D.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D.

Robert Ball, LL.D., *Secretary.*

*17th July*, 1854.

*Present:* The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
The Right Honourable Francis Blackburne, LL.D.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

*24th July*, 1854.

*Present:* The President of the Queen's College, Belfast.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.

Robert Ball, LL.D., *Secretary.*

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